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ABSTRACT

Occupational analysts using Comprehensive Occupational Data Analysis Programs (CODAP) make subjective decisions at various stages in their analysis of an occupation. The possibility exists that two different analysts could reach different conclusions in analyzing an occupation, and thereby provide divergent guidance to management. Two analysts, working independently, performed job typing using CODAP on occupational data collected by a single administration of a job inventory. Each analyst selected the same size sample, at random but without any cases common, from the total survey. The job types identified by each analyst were compared to determine whether they were significantly different in any respect. Superficial differences appeared between the results of the two analyses, but were largely resolved when job types reported by the first analyst were compared not only on a one-to-one basis with job types reported by the second analyst, but also with combinations of job types reported on the second occasion. The contents of this report are highly technical and will be of primary interest to persons working in the field of occupational analysis, both in terms of content and application of techniques. (Included are 54 statistical tables.) (Author/BP)

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AIR FORCE HUMAN RESOURCES LABORATORY

THE SIMILARITY OF JOB TYPES REPORTED FROM TWO INDEPENDENT ANALYSES OF OCCUPATIONAL DATA

By

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Lackland Air Force Base, Texas 78236

February 1974

Interim Report for Period 2 April 1973 - 12 October 1973

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with job types reported by the second analyst, but also with combinations of job types reported on the second occasion. The contents of this report are highly technical and will be of primary interest to persons working in the field of occupational analysis, both in terms of content and application of techniques.

PREFACE

The work reported in this study was accomplished under Project 7734, Development of Methods for Describing, Evaluating, and Structuring Air Force Occupations; Task 773403, Development and Evaluation of Methods for Grouping Work Activities into Positions, Specialties, and Career Fields.

Appreciation is expressed to Mr. Wayne B. Archer and Mr. William J. Phalen of the Air Force Human Resources Laboratory's Occupational Research Division, for their advice on Comprehensive Occupational Data Analysis Programs (CODAP).

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THE SIMILARITY OF JOB TYPES REPORTED FROM TWO INDEPENDENT ANALYSES OF OCCUPATIONAL DATA

I. INTRODUCTION

The Air Force uses as a management tool the results of occupational analysis in which job information, collected by inventory booklet from a large sample of job incumbents, is studied by a professional analyst using a set of specially prepared computer programs known as Comprehensive Occupational Data Analysis Programs (CODAP). Because of intrinsic differences between occupations, standardized analysis procedures are not always practicable. Though analysts on most occasions will process the occupational data through the same sequence of computer programs, the results at various stages must be interpreted by the analyst, and subjective decisions made. Under such circumstances, the possibility exists that two different analysts could reach different conclusions from studies of comparable samples drawn from the same occupation. This research investigates this possibility for one of the basic stages of occupational analysis, that of job typing.

The job types reported are the result of a subjective selection by the analyst from the variety of clusters formed by a computer program. His selection is based in part on a branch diagram of job type clusters printed by the computer, but in making his decisions he is guided by the wealth of background information collected on job incumbents by the inventory, together with detailed printouts of all the duties and tasks performed by each possible cluster. (For an example of this selection process, refer to Comments on Item Accounting and Maintenance Support GRP012 Cluster, in a following section of this report.

II. PROCEDURE

An occupational survey of the Inventory Management and Materiel Facilities career ladders, Air Force Specialty Codes (AFSC) 645X0 and 647X0, was carried out by the Occupational Survey Branch of the 3700 Occupational Measurement Squadron (ATC) in 1972. The survey instrument was an inventory booklet containing 24 duties subdivided into a total of 529 tasks. Usable inventories were returned by 5,544 job incumbents, representing about 15% of the total Air Force manning in these specialties at that time. Since the computer programs used to analyze the data were limited to a maximum of 1,996 cases, a sample of 1,983 cases, drawn at random from the 5,544 cases collected, was analyzed. The results of that analysis were reported in Occupational Survey Report, AFPT90-64X-069, 1 October 1972, 3700 Occupational Measurement Squadron (ATC), and constitute the first of the two independent analyses which are the subject of this report.

For the present analysis, a second sample of 1,983 cases was drawn from the 3,561 cases not used on the first occasion. Job typing was performed by the writer of this report using computer programs selected from CODAP. In comparing the results of the two analyses, the main variable was to be the analyst, in particular the computer programs he selected for analysis and the interpretation he placed on the results produced by them. It was therefore necessary to ensure that the two samples used for analysis were of similar composition. If the two samples were significantly different, it would be reasonable to expect different results no matter what the analyst's approach. Conversely, if the same cases were included in both samples, unwarranted similarities could appear.

Since the first sample had been drawn from the original data by a random selection process, the second sample was drawn by the same process from those cases not used the first time. Then, to ensure comparability, a summary of 13 key background variables such as grade, AFSC, time in present job, time in AFSC, average number of tasks performed, etc., was computed for each of the 13 AFSC groups included in the survey. For each variable, the distribution or mean for the AFSC group, as appropriate, was compared with that of the AFSC group in the original sample, with the intention of substituting new cases to adjust for any major discrepancies between the samples. The eight variables for which mean values were computed are shown in Table 1; the variations observed were not considered large enough to warrant any substitutions. As a further check, printouts of all the duties and tasks performed by each AFSC group in both samples, showing what percent of the group performed the duty or task and how much of their time was spent on it, were compared and revealed negligible differences between the samples (e.g., for SPC001 All Airmen DAFSC 654X0, the top 20 tasks were common to both samples; the average absolute difference in percent time spent by members on each of these

TABLE 1. COMPARISON OF MEAN VALUES OF KEY BACKGROUND VARIABLES FOR DAFSC GROUPS IN SAMPLE I AND II

		645X0	647X0	64530	64550	64570	64590	[a]64530A	64550A	64570A	64730	64750	64770	64790
Av. Number	Sample I	30.6	31.7	16.5	25.4	40.1	52.3	112.8	79.7	103.5	20.9	29.4	45.1	67.6
of Tasks	Sample II	35.5	30.5	17.4	30.4	45.6	56.0	178.0	80.1	118.0	19.5	29.7	41.0	64.6
Grade	Sample I	4.8	4.2	3.1	4.1	5.9	8.0	4.0	4.7	6.0	2.8	3.9	5.8	7.8
	Sample II	4.8	4.1	3.1	4.1	5.9	7.9	5.0	4.7	6.0	2.8	3.9	5.8	7.8
No. of People	Sample I	1.7	1.9	0.3	0.5	3.5	3.8	0.0	0.5	1.8	0.1	0.9	4.7	5.0
Supervised	Sample II	1.6	1.9	0.2	0.6	3.2	4.2	0.0	0.4	2.3	0.1	1.5	4.8	5.0
Total Months	Sample I	14	12	6.7	14	15	13	10	18	18	6.7	13.5	17	13
Present Job	Sample II	14	12	6.7	15	15	16	15	18	20	6.7	13.5	16	13
Total Months	Sample I	60	56	9.5	43	109	79	36	52	69	8.6	51	110	144
in DAFSC	Sample II	60	56	10.0	43	110	68	87	55	84	8.6	51	110	145
Total Months	Sample I	94	75	10.0	48	170	240	55	79	148	8.8	54	174	249
in Career Field	Sample II	93	75	11.9	49	162	236	111	76	151	8.3	55	178	265
Total Months	Sample I	104	84	18	55	185	263	70	111	196	13	61	194	271
Military Service	Sample II	106	84	20	56	183	258	128	122	196	13	64	194	288
Based	Sample I	1.3	1.3	1.1	1.3	1.5	1.5	1.6	1.4	1.5	1.1	1.2	1.3	1.2
CONUS	Sample II	1.3	1.2	1.1	1.3	1.4	1.4	1.0	1.4	1.6	1.0	1.2	1.3	1.1

[a] Very small group (N=2) - hence the instability.

tasks was .04; and the average absolute difference in percent members performing each of these tasks was slightly below 1%. These differences were typical of those observed).

Thus, the second sample was judged to be sufficiently similar to the first to preclude any difference in final results being attributable to differences between the samples analyzed.

Computer Programs Available

Generally speaking, computer programs for use in occupational analysis are subject to continual evolution and change. However, the programs designed for job type identification underwent no change between the time the two samples were analyzed; i.e., all the programs available to the second analyst were also available to the first. Thus, any differences in final results were not caused by differences in available tools.

Job Types Identified in the First Sample

No record is available of the sequence of analysis or the reasons for decisions made by the first analyst. (There is, of course, no reason why there should be; such records would normally be destroyed after the final report is written and approved). The final report identified 29 functional areas, consisting of 20 clusters of job types, showed diagramatically the sequence of clustering, and gave amplifying descriptions of 10 of the major clusters. (For details, see Occupational Survey Report, AFPT90-64X-069; also Table 2, Branch Diagram Sample I, of this report.)

Job Types Identified in the Second Sample

If the job types identified in the second sample had been obviously identical with those of the first, a statement of that fact would constitute this complete report. Preliminary comparisons appeared to indicate considerable differences between the job types identified on the two occasions, but in fact, as the discussion will show, the basic job types in the two analyses were quite similar. The second analysis identified three major job clusters and two subclusters, the major clusters being subdivisible in stages into eight more subclusters, and the whole sample eventually breaking into 51 job types (cf., 20 clusters and 9 unclustered job types in the first report). Further, the names used by the analysts to identify these clusters and job types often differed, and sometimes the same name was used for different groups. For example, the first analyst named GRP 300 the Warehouse Cluster, while the second analyst used this name to describe a group (GRP019) in his clustering diagram which was approximately nine times as large and contained a job type group equivalent to GRP300.

As the results of the two analyses were not obviously similar, a detailed report of the job type analysis of the second sample is now given, to enable comparisons with the results of the first analysis to be drawn.

III. JOB TYPE ANALYSIS OF THE SECOND SAMPLE

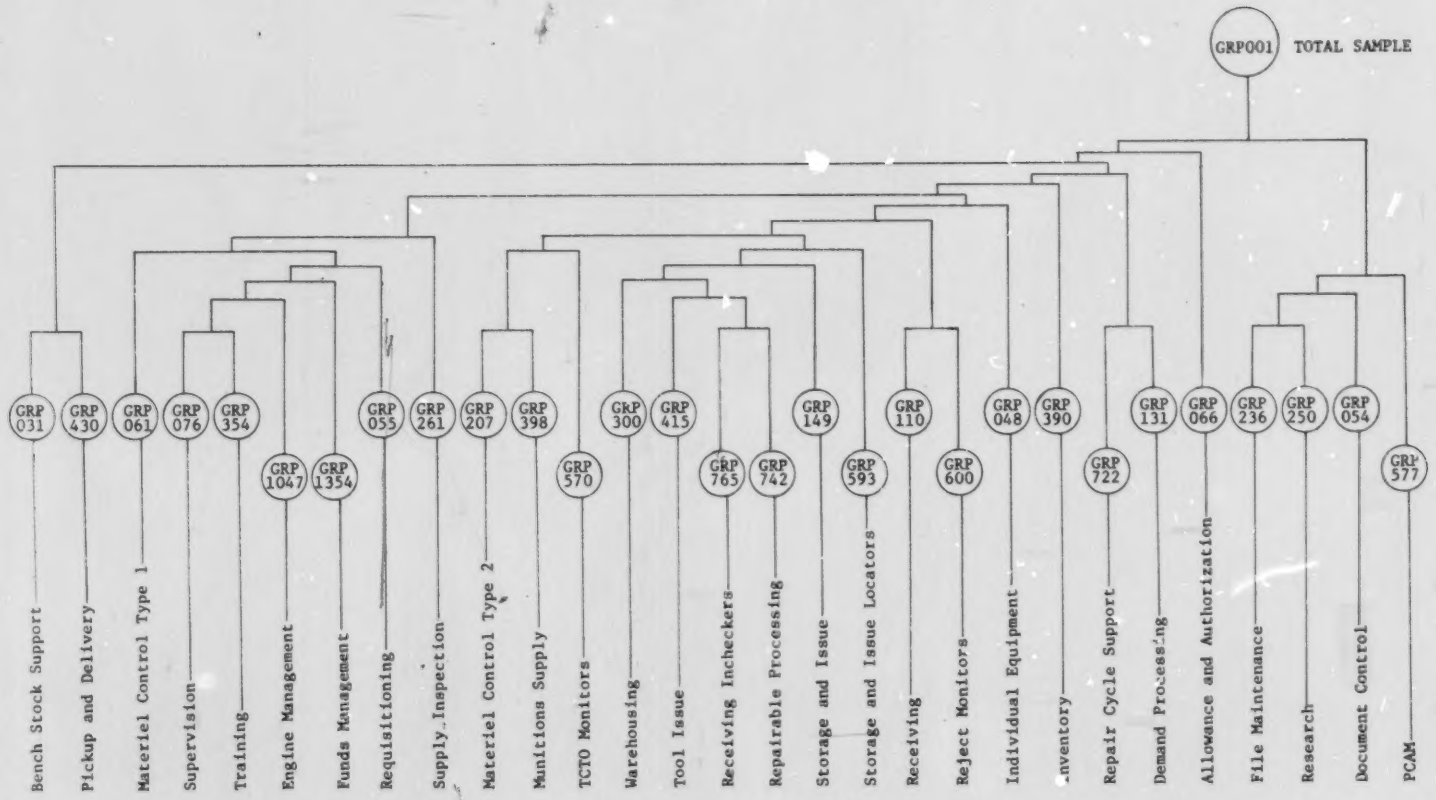
During the analysis of the second sample, no reference was made to the results of the first investigation, as it was felt that knowledge of the names and natures of the job types identified would influence subjective decisions and affect the independence of the second analysis.

To identify the types of jobs performed by the airmen in the second sample, an automated job clustering program was used. The computer compared the job of each member with that of each of the other 1,982 in the sample, located the two most similar jobs in terms of time spent on tasks, and merged them into a two-job cluster, which it identified as GRP1982. This process was repeated, with each iteration forming a new cluster or combining two existing ones, depending on the similarity of the jobs. Eventually, after 1,982 iterations, the whole sample merged into one group, called GRP001. Printouts recorded the identification and overlap values at each stage, while a further program displayed the results of the clustering in diagram form. A detailed description of the method for analyzing occupational survey data, using a miniature sample, is contained in Archer (1966). From this information, significant job types and clusters of job types were identified, and duty and task job descriptions were computed for each. (Computer printouts of group job descriptions for the reported job types, as well as supporting statistical data, are available to qualified users on request to AFHRL/OR, Stop #63, Lackland Air Force Base, Texas 78236.) Background variables such as AFSC, skill level, grade, etc., have no bearing on this clustering process; only the time spent by each case on each task is considered.

Branch Diagrams

The relationship between the various job types identified by analysis of the computer produced diagram, job similarity (overlap) values. job

TABLE 2. BRANCH DIAGRAM -- SAMPLE I



descriptions, background variables, etc., can conveniently be displayed by a branch diagram. Such diagrams are included in this report for the Total Sample (GRP001), see Tables 2 and 3, and for each major job cluster and subcluster. Cluster titles are based on either the job titles reported by the incumbents themselves, or on the tasks and duties they perform. Branch lines in the diagram indicate the sequence of clustering. Job type clusters and subclusters are shown by circles, while job types are shown by pentagons. Totals for isolates; i.e., those whose jobs are so unique that they do not fit into any cluster or job type, are shown in square boxes near the cluster or job type with which they eventually merged one or two at a time. The smallest number of cases accepted as a group was 10, or about .5% of the sample. Any groups smaller than this were included with the isolates.

Background Information

Below each branch diagram is tabulated a summary of the main background information on each group, condensed from the complete summary of background variables (VARSUMS) located in the associated computer printout.

1. KPATH. The KPATH sequence is one allocated by the computer which reorders the cases to place most similar jobs in proximity to each other. Thus, in a job type group, the cases are identified by a block of consecutive identification numbers called the KPATH sequence. The background information is also printed in this sequence and so can be readily located for any job type group.

2. *N* = number of cases in the group.

3. Career Ladder 645X0/647X0. This is the relative distribution by DAFSC for each group. As not every respondent provided this information, there is sometimes a discrepancy between the total of this distribution and *N*.

4. Average Grade. This is the average grade for the group on the 9–point scale (E1 through E9).

5. Average Number Tasks. This is the average number of tasks performed by the group.

6. The Number Supervised. This is the average number of personnel supervised by the group members.

7. T25, T50, T75. This records the number of tasks performed by the group in 25%, 50%, and 75% of their work time, and gives a measure of degree of specialization, versatility, etc.

Duty and Task Comparison Tables

Tabulations of the most important duties and tasks, in terms of the number performing and amount of time spent, accompany the branch diagram for each of the groups to enable the investigator to discern more readily the essential similarities and differences between members of the cluster. In each table, column entries show the group identification number and the number in the group; then for each duty or task is tabled the percent of group members who perform the duty or task (%*N*), together with the average percent of time spent by all members of the group on that duty or task (%T), both rounded to the nearest percent. In some cases, it has been necessary to abbreviate the duty or task title. Full titles are included in the computer printouts. The information in the duty and task comparison tables was extracted from the group job descriptions (GRP001, etc.) and the primary job identifiers (PRI001, etc.), both of which are indexed in the computer printouts.

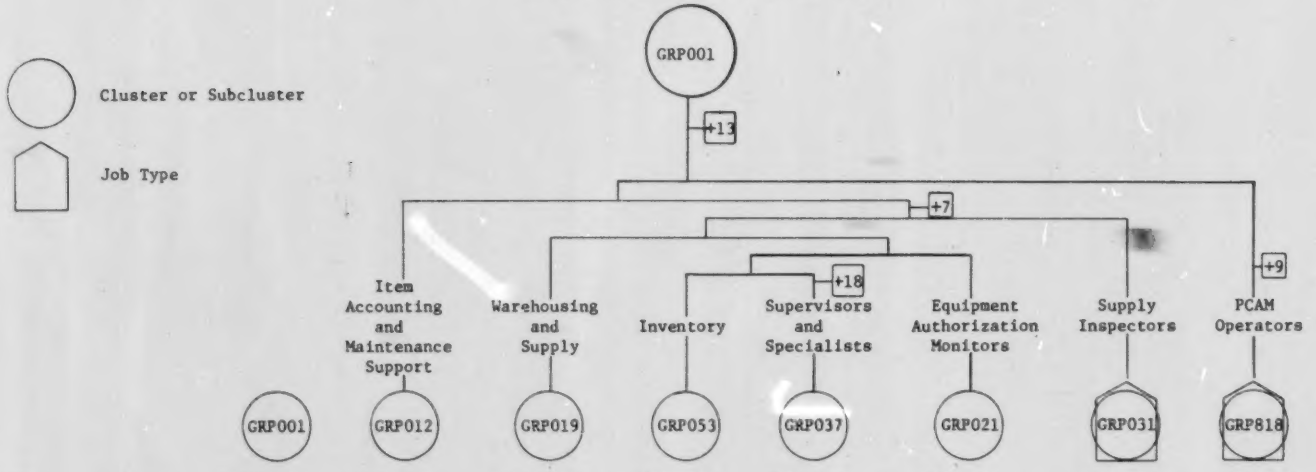
Note that while all duties are included in the Duty Comparison tables, only the top few tasks for each group are included in the Task Comparison tables, so that at most, only about 25 of the 529 tasks in the inventory are compared for the member groups of each cluster. Figures indicating heavy involvement in the duty or task are underlined, and the table is completed to show the involvement, if any, of each other member group in the cluster. Dashes(––) on the tables indicate a low level of involvement rather than none at all. In the Duty Comparison tables, any time spent figures below 5% are treated in this way, while in the Task Comparison tables, no time spent values below 1% are displayed.

IV. COMMENTS ON TOTAL SAMPLE GRP001

Branch Diagram and Background Information (Table 3)

Late in the clustering process, 1,936 of the original 1,983 members were grouped into three job type clusters (GRP012, GRP019, GRP037), two job type subclusters (GRP053, GRP021), and two independent job types (GRP031,GRP818). Table 3 shows that the average job of the Inventory GRP053 Subcluster is more similar to the Supervisors and Specialists GRP037 Cluster than to any other, particularly after GRP037 has been "watered down" by absorbing 18 cases which were

TABLE 3. BRANCH DIAGRAM -- SAMPLE II



	GRP001	GRP012	GRP019	GRP053	GRP037	GRP021	GRP031	GRP818
KPATH	0001-1983	1721-1951	0793-1660	0001-0090	0091-0701	0720-0792	1661-1713	1957-1966
N	1983	231	868	90	611	73	53	10
645X0/647X0	987/991	208/23	128/738	55/34	487/122	69/4	0/53	10/0
Average Grade	4.5	4.0	3.9	4.1	5.7	4.1	5.0	3.9
Time in DAFSC	58	39	43	48	85	38	103	26
Average Number Tasks	33	12	29	26	49	27	31	7
The Number Group Supervise	1.8	.7	1.3	1.0	3.2	.4	1.0	.5
T25[a]	28	9	13	5	17	6	8	1
T50[a]	83	30	37	12	56	18	20	3
T75[a]	182	74	84	32	142	63	43	7

[a] Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

not very similar to the first 611. Hence, these groups merge first. Next most similar is GRP021, which merges next, and so on. Punch Card Accounting Operators (PCAM) GRP818, is the group whose job is least like the average 645X0/647X0 job; however, the final 9 and 13 isolates have even more unique jobs.

The tabulated background information shows that, while the total sample consists of almost equal numbers from the two career ladders AFSCs 645X0 and 647X0, the major job clusters contain members from both AFSCs, but not in equal numbers. The biggest cluster, Warehousing and Supply GRP019, which is essentially a 647X0 field, contains about 15% 645X0 members, while the main 645X0 work areas, clustering as GRP037 and GRP012, contain about 20% and 10% 647X0 members, respectively. The job types of these members who appear to be working outside their AFSC are discussed later in this report. The two job types which occur in the GRP001 Branch Diagram each contain members of only one AFSC.

The average grade tabulation shows that the large Warehousing and Supply GRP019 Cluster has a lower than average grade level, while the Supervisors and Specialists GRP037 Cluster has a relatively high average grade of 5.7. GRP037 contains many members who have clustered because of the similarity of their supervisory duties, independent of whether they are supervising a 645X0 or a 647X0 work area, and so this high average grade is not unexpected. However, far from all the 647X0 supervisors are clustered in GRP037. As will be seen later, each of the main work areas in cluster GRP019 has its own group of supervisors, who, because they perform enough of the normal work tasks, cluster with the workers in GRP019 rather than with the supervisors in GRP037. This is not so for the 645X0 clusters GRP012 and GRP021 which consist only of workers, the supervisory element being in GRP037. The average grade for all 645X0 members in the total sample is 4.9, while that of the 647X0 members is 4.2.

The Time in Duty Air Force Specialty (Time in DAFS) data show that the Supervisors and Specialists GRP037, and the Supply Inspectors GRP031, average 7 through 9 years experience, while the average worker in the other groups has 2 through 4 years experience in DAFS. The number of tasks performed increases with grade and experience, as does the number of subordinates supervised.

The number of tasks accounting for the various percentages of the group's work time shows the highly specialized role of the PCAM Operator GRP818 as a contrast to the way in which the more senior grades of airmen are expected to be able to perform a far wider range of tasks as a normal part of their work.

Duty and Task Comparison Tables (Tables 4 and 5)

Table 4 gives a broad-brush picture of the importance of the managerial Duties A through D in these job groups, especially Duty B, Directing and Implementing, which occupies 60% of the members in the total sample GRP001 for 12% of their time. It further shows the main duties with which each cluster is concerned; e.g., the Warehousing and Supply GRP019 Cluster concentrates heavily on receiving, issuing and delivering supplies and equipment (Duties S, W, and X, respectively), with some time devoted to supervision (Duty B) as mentioned earlier. However, since a member is credited with performing a duty if he performs any single task in that duty, comparisons of job types by duties alone are only general guides and can be misleading if used in isolation. A more detailed picture is revealed by task comparisons.

Before examining Table 5, it should be noted that GRP012 concentrates mainly on Duties G and I, hence its name; however, Table 7 reveals a number of distinct job types within each of these duties for GRP012; i.e., each main duty in Table 4 indicates a subcluster of job types. This trait occurs in both the other clusters (GRP019, GRP037) and a parallel situation, between subclusters and job types, exists for subclusters GRP053 and GRP021.

Table 5 shows that the more important tasks for each group are essentially unique to that group, with the exception of the somewhat nebulous task B2 "Coordinate with other sections or agencies." The Table also illustrates the variation in the amount of participation the various clusters have in their main tasks. For the heterogeneous cluster GRP019, the main task W24 "Place property in warehouse bins, racks or bays" is done by only half the members, and the group average on it only about 2% of their work time, while for the homogeneous job type GRP818, every group member spends about 20% of his time on each of the three main tasks.

The hetereogeneous nature of the sample GRP001 is shown by the fact that only one task,

TABLE 4. DUTY COMPARISON OF GRP001 -- TOTAL SAMPLE

DUTY	GROUP NO / N	001 1983	012 231	019 868	053 90	037 611	021 73	031 53	818 10
		%N(%I)	%N(%I)	%N(%I)	%N(%I)	%N(%I)	%N(%I)	%N(%I)	%N(%I)
A	ORGANIZING AND PLANNING	44(5)	-	-	-	79(11)	-	-	-
B	DIRECTING AND IMPLEMENTING	60(12)	45(8)	43(5)	56(7)	94(24)	64(8)	-	50(7)
C	INSPECTING AND EVALUATING	46(5)	-	-	-	80(11)	-	-	-
D	TRAINING	-	-	-	-	69(9)	-	-	-
E	INVENTORYING EQUIPMENT AND SUPPLIES	44(7)	-	45(5)	100(72)	-	-	-	-
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS	-	-	-	-	51(5)	-	-	-
G	PERFORMING ITEM ACCOUNTING FUNCTIONS	37(6)	60(26)	-	-	47(5)	-	-	50(15)
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS	29(5)	32(6)	-	-	48(12)	-	-	-
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS	33(5)	41(17)	-	-	-	-	-	-
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS	-	-	-	-	-	99(48)	-	-
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS								
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS								
M	OPERATING COMPUTER SUPPORT EQUIPMENT	-	42(7)	-	-	-	-	-	100(60)
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT								
O	PERFORMING MATERIEL CONTROL FUNCTIONS								
P	PERFORMING MANUAL ACCOUNTING PROCEDURES								
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS								
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES	35(10)	-	56(21)	-	-	-	37(6)	-
S	RECEIVING PROPERTY	-	-	-	-	-	-	100(67)	-
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY	-	35(6)	-	-	-	55(7)	-	-
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS	-	35(8)	-	-	-	-	51(5)	-
V	RESEARCHING PUBLICATIONS AND FILES								
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT	40(13)	-	63(27)	-	-	-	-	-
X	DELIVERING SUPPLIES AND EQUIPMENT	34(8)	-	57(18)	-	-	-	-	20(7)

TABLE 5. TASK COMPARISON OF GRP001 -- TOTAL SAMPLE

Line No.		TASK TITLE	GROUP NO / N	001 1983	012 231	019 868	053 90	037 611	021 73	031 53	818 10
				%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	B2	COORDINATE WITH OTHER SECTIONS OR AGENCIES		44(2)	21(2)	-	42(1)	83(3)	43(2)	-	10(2)
2	C29	WRITE AIRMEN PERFORMANCE REPORTS		30(1)	-	-	-	63(2)	-	-	-
3	B3	COUNSEL SUBORDINATES		30(1)	-	-	-	63(2)	-	-	-
4	M5	OPERATE REMOTE KEYBOARD PRINTERS		22(1)	39(5)	-	-	-	-	-	-
5	G13	MAINTAIN DOCUMENT AND SUPPORT FILES		-	26(3)	-	-	-	-	-	-
6	X6	DRIVE CAR OR PICKUP TRUCK		20(1)	-	35(3)	-	-	-	-	-
7	W24	PLACE PROPERTY IN WAREHOUSE BINS, RACKS, OR BAYS		-	-	50(2)	-	-	-	-	-
8	E10	COUNT PROPERTY		-	-	-	90(6)	-	-	-	-
9	E5	CONDUCT SPECIAL INVENTORIES		-	-	-	85(5)	-	-	-	-
10	E28	RESEARCH INVENTORY DISCREPANCIES		-	-	-	82(5)	-	-	-	-
11	B4	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES		-	-	-	-	66(2)	-	-	-
12	B11	DRAFT CORRESPONDENCE		-	-	-	-	66(2)	-	-	-
13	J9	MAINTAIN SUSPENSE FILE OF AF FORMS 601A AND 601B		-	-	-	-	-	66(5)	-	-
14	J1	COMPLETE CUSTODIAN REQUEST RECEIPTS AF FORM 601B		-	-	-	-	-	76(5)	-	-
15	T28	PREPARE LABELS OR TAGS FOR PROPERTY		-	-	-	-	-	-	91(5)	-
16	[a]T1	COMPARE IDENTITY OF PROPERTY WITH INFORMATION IN DOCUMENTS		-	-	-	-	-	-	88(5)	-
17	T17	IDENTIFY PROPERTY USING SUPPLY OR TECHNICAL PUBLICATIONS		-	-	-	-	-	-	81(4)	-
18	M1	OPERATE CARD SORTERS		-	-	-	-	-	-	-	100(22)
19	M2	OPERATE INTERPRETERS		-	-	-	-	-	-	-	100(19)
20	M3	OPERATE KEYPUNCH MACHINES		-	-	-	-	-	-	-	100(17)

[a]Shortened when necessary.

B2 "Coordinate with other sections or agencies," is done by more than 40% of the members, and even this task takes less than 2% of the group's available work time. Only two other tasks, C29 "Write airmen performance reports," and B3 "Counsel subordinates," were done by more than 30%, and then for less than 1% of their work time. These three tasks are common to most Air Force Specialties (AFS); The most time consuming 645X0/647X0 tasks were X6 "Drive car or pickup truck" and M5 "Operate remote keyboard printers," on which an average of about 20% of the sample were employed for about 1% of their work time.

V. COMMENTS ON ITEM ACCOUNTING AND MAINTENANCE SUPPORT GRP012 CLUSTER

Table 6 shows that this cluster of 231 members contains two subclusters (as was suggested by Table 4) each containing four job type groups. These job types contain only slightly over half of the original 231 members, the rest being isolates. Seven of the eight job types are manned almost wholly with 645X0 members, but the Remote Terminal Operator GRP251, a 647X0 job, is also part of this cluster.

Table 7 shows that membership in the Item Accounting or Maintenance Support GRP012 subcluster is dependent on performance of Duty G or I, respectively, hence the subcluster name. Table 8 shows GRP808, GRP219, and GRP283 perform several common tasks (M5, V1, V2, G33, G37), while GRP740, GRP220, and GRP153 have in common, to a lesser extent, tasks I15, I19, I14, and I28, confirming the clusters. However, the tasks underlined on Table 8 show essential differences between the eight job types in the cluster, and provide justification for not reducing the number of reported job types. For example, Catalog Research GRP808 and Stock Number Unit Directory/Catalog Research GRP219 are very similar in many respects, both on background variables such as DAFSC and grade, duty variables (every member of both groups spends much of his work time on Duty G), and task variables (G33, G37). The decision to report them as separate job types, instead of combining them, was governed in part by differences in their background variables; e.g., time in DAFSC and number supervised, in part by differences in their duties; e.g., Duty W, and in part by differences in tasks performed; e.g., average number of tasks performed, performance of specific tasks, V1, V2, G16, G12, etc. This selection process is the one referred to in the introduction to this report. Subjective selection processes such as this were repeated not only for the job types reported, but also in making the decision to reject other groups as distinct, separate job types.

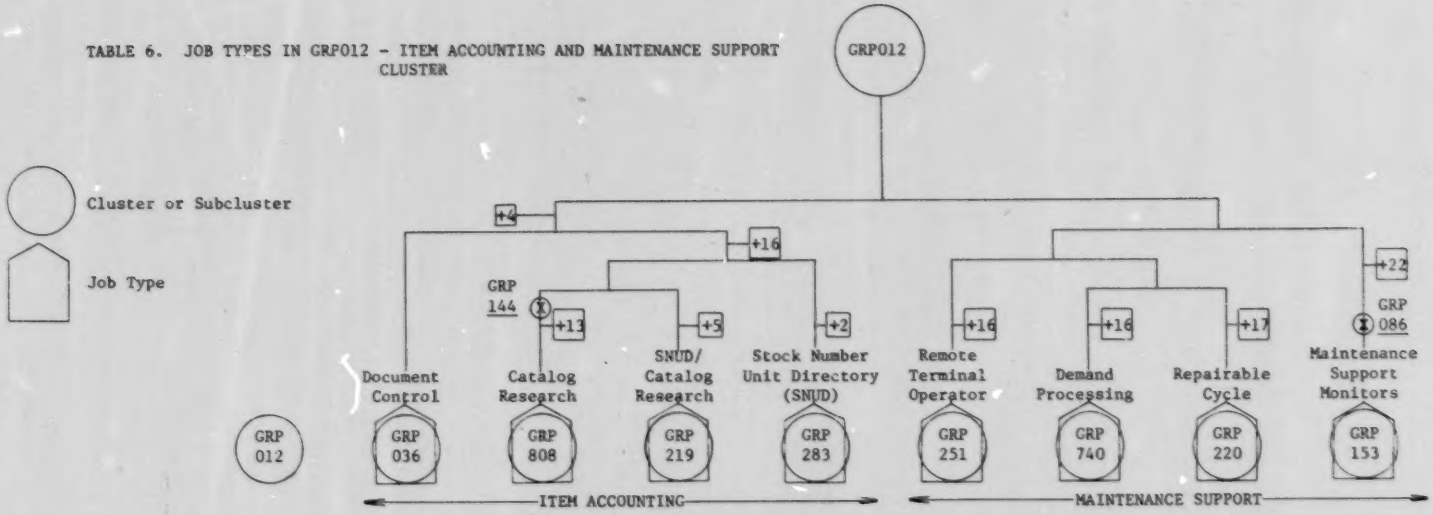
VI. COMMENTS ON WAREHOUSE AND SUPPLY GRP019 CLUSTER

For convenience in presentation, the job types which constitute the Warehouse and Supply GRP019 Cluster are reported under the three subclusters suggested by Table 4. Tables 9 through 11, 12 through 14, 15 through 17 and 18 through 20 show the branch diagrams, duty comparisons and task comparisons for the main cluster (GRP019) and its 3 subclusters GRP028, GRP029 and GRP030 respectively. In all, 19 job types were identified in the cluster. While the jobs in the area are manned, in the main, by Materiel Facilities 647X0 personnel, both the Delivery GRP028 and the Issuing GRP029 Subclusters have about 20% 645X0 personnel. These are concentrated in the Bench Stock GRP104 Job Type in the Delivery GRP028 Subcluster, and in the Individual Equipment/Tool Issue GRP149, GRP146, and GRP308 and the Issue/Receipt Documents GRP275 Job Types in the Issuing GRP029 Subcluster. The average grade is constant for the three subclusters, but within each subcluster there is at least one supervisory job type with a grade of E5 through E6, a higher than average number of months of service in DAFS, and an above average number of tasks performed.

The Delivery GRP028 Subcluster has within it a large group of airmen who are employed almost exclusively as Pickup and Delivery Drivers GRP747 (N=97). A measure of their degree of specialization is obtained from the tabulation of the number of tasks performed in 25%, 50%, and 75% of their work time. This 97 man group (GRP747) spends 75% of its time on only 7 tasks. Four of the five remaining groups in the subcluster also do a lot of delivery driving, but in each case (Table 13) they devote a significant portion of their time to another duty; e.g., GRP770, to Duty S "Receiving Property." The remaining job type Bench Stock GRP104, is not much involved with Delivery GRP028, but is closely related by Duty I Bench Stock tasks (I8, I3, etc.) to Bench Stock Delivery GRP368, and thence to the subcluster.

Within the Issuing GRP029 Subcluster, three further subclusters were identified containing between them a total of ten job types. Three groups, GRP149, GRP146, and GRP308,

TABLE 6. JOB TYPES IN GRP012 - ITEM ACCOUNTING AND MAINTENANCE SUPPORT CLUSTER



KPATH	1721-1951	1796-1831	1721-1736	1750-1762	1768-1777	1836-1846	1871-1887	1893-1902	1930-1939
N	231	36	16	13	10	11	17	10	10
645X0/647X0	208/23	35/1	16/0	13/0	10/0	3/8	17/0	9/1	9/1
Average Grade	4.0	3.8	4.4	4.2	3.2	3.2	3.8	3.9	4.2
Time in DAFSC	39	35	6[illegible]	37	14	19	26	29	61
Average Number Tasks	12	11	10	20	9	4	6	18	19
The Number Group Supervise	.7	1.5	.5	1.8	0	0	0	.4	.3
T25[a]	9	2	2	5	2	1	2	4	4
T50[a]	30	8	5	12	5	3	3	12	12
T75[a]	74	21	10	25	15	9	7	32	29

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 7. DUTY COMPARISON OF GRP012 -- ITEM ACCOUNTING AND MAINTENANCE SUPPORT CLUSTER

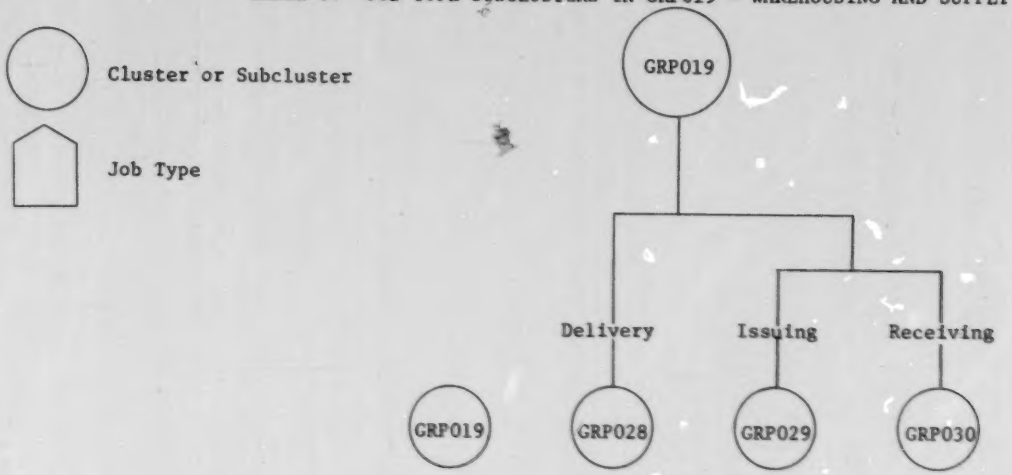
DUTY	GROUP NO / N	012 231	036 36	808 16	219 13	283 10	251 11	740 17	220 10	153 10
		%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING									
B	DIRECTING AND IMPLEMENTING	45(8)	44(6)	-	-	-	-	-	80(11)	70(8)
C	INSPECTING AND EVALUATING									
D	TRAINING									
E	INVENTORYING EQUIPMENT AND SUPPLIES	-	-	-	-	-	27(7)	-	-	-
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS									
G	PERFORMING ITEM ACCOUNTING FUNCTIONS	60(28)	97(66)	100(53)	100(73)	80(34)	-	-	50(5)	-
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS	32(6)	-	-	-	-	18(5)	-	60(5)	50(5)
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS	41(17)	-	-	-	-	-	100(78)	100(52)	90(27)
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS									
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS									
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS									
M	OPERATING COMPUTER SUPPORT EQUIPMENT	42(7)	-	-	-	90(13)	100(51)	35(7)	-	-
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT									
O	PERFORMING MATERIEL CONTROL FUNCTIONS	-	-	-	-	-	-	-	-	100(24)
P	PERFORMING MANUAL ACCOUNTING PROCEDURES									
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS									
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES									
S	RECEIVING PROPERTY	-	-	-	-	-	36(19)	-	-	-
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY									
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS	35(6)	39(11)	-	-	100(28)	9(5)	-	50(5)	90(13)
V	RESEARCHING PUBLICATIONS AND FILES	35(8)	-	100(32)	46(6)	60(11)	-	-	-	60(7)
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT	-	-	-	-	-	27(12)	-	-	-
X	DELIVERING SUPPLIES AND EQUIPMENT									

TABLE 8. TASK COMPARISON OF GRP012 -- ITEM ACCOUNTING AND MAINTENANCE SUPPORT CLUSTER

Line No.		TASK TITLE	GROUP NO / N	012 231	036 36	808 16	219 13	283 10	251 11	740 17	220 10	153 10
				%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	M5	OPERATE REMOTE KEYBOARD PRINTERS		39(5)	-	50(3)	38(2)	90(13)	100(32)	-	40(3)	-
2	G13	MAINTAIN DOCUMENT AND SUPPORT FILES		26(3)	89(14)	-	53(2)	-	-	-	-	-
3	G27	PERFORM QUALITY CONTROL ON ACCOUNTABLE DOCUMENTS		17(2)	81(10)	6(1)	-	10(1)	-	-	-	-
4	G7	IDENTIFY DELINQUENT DOCUMENTS		16(2)	75(8)	-	-	-	9(1)	-	-	-
5	[a]V1	RESEARCH CATALOGS OR PUBLICATIONS FOR ITEM IDENTIFICATION		26(3)	-	100(12)	38(2)	40(3)	-	-	-	30(3)
6	[a]V2	RESEARCH CATALOGS OR PUBLICATIONS FOR SUPPLY SOURCES		21(2)	-	100(12)	31(1)	20(2)	-	-	-	40(3)
7	[a]G33	PREPARE INPUTS TO LOAD, CHANGE OR DELETE RECORDS		22(2)	-	88(11)	85(6)	70(7)	-	-	-	-
8	G37	RESEARCH INPUTS THAT HAVE REJECTED		29(3)	22(2)	94(11)	85(5)	40(3)	-	-	20(1)	-
9	G16	MAINTAIN INTERNAL ITEM RECORDS CURRENT BY POSTING IN SNUD		-	-	-	77(6)	20(1)	-	-	-	-
10	G12	MAINTAIN COMPUTER INPUT SUSPENSE FILE		-	14(1)	-	85(5)	-	-	-	-	-
11	U18	MAINTAIN STOCK NUMBER DIRECTORY		15(1)	11(1)	-	-	100(18)	-	-	-	60(4)
12	U20	MAINTAIN SUSPENSE FILES		12(1)	22(2)	-	-	70(9)	9(5)	-	30(2)	50(2)
13	I15	OPERATE RADIO, PHONE, INTERCOM OR TELETYPE EQUIPMENT		20(2)	-	-	-	-	-	94(19)	40(3)	70(3)
14	I19	PREPARE ISSUE INPUTS FOR COMPUTER PROCESSING		20(2)	-	-	-	-	9(2)	100(19)	90(6)	-
15	[a]I14	OBTAIN VERIFICATION OF PRIORITY ON REQUESTS FOR ITEMS NAFI		13(2)	-	-	-	-	-	71(11)	-	70(7)
16	I28	VERIFY DELIVERY PRIORITY AND URGENCY OF NEED DESIGNATORS		12(1)	-	-	-	-	-	71(10)	10(1)	40(2)
17	I18	PREPARE INPUTS TO UPDATE DIFM DETAIL RECORDS		-	-	-	-	-	-	-	100(8)	-
18	I11	MAINTAIN SURVEILLANCE OF DIFM ITEMS		-	-	-	-	-	-	-	90(7)	30(1)
19	I22	PREPARE TURN-IN DOCUMENTS FOR DIFM ITEMS		13(1)	-	-	-	-	-	-	90(5)	-
20	O12	VERIFY OR MONITOR NORS REQUIREMENTS		13(1)	-	-	-	-	-	-	-	90(11)
21	O5	PREPARE CANNIBALIZATION RECORDS		-	-	-	-	-	-	-	-	80(6)

[a]Shortened when necessary.

TABLE 9. JOB TYPE SUBCLUSTERS IN GRP019 - WAREHOUSING AND SUPPLY CLUSTER



KPATH	0793-1660	1243-1660	0793-1242	1243-1447
N	868	213	450	205
645X0/647X0	128/738	38/174	84/365	6/199
Average Grade	3.9	3.8	3.9	3.9
Time in DAFSC	43.5	35.3	44.4	49.8
Average Number Tasks	29	15	37	25.9
The Number Group Supervise	1.3	1.4	1.3	1.3
T25[a]	13	3	10	6
T50[a]	37	9	33	13
T75[a]	84	26	88	30

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 10. DUTY COMPARISON OF GRP019 -- WAREHOUSING AND SUPPLY CLUSTER

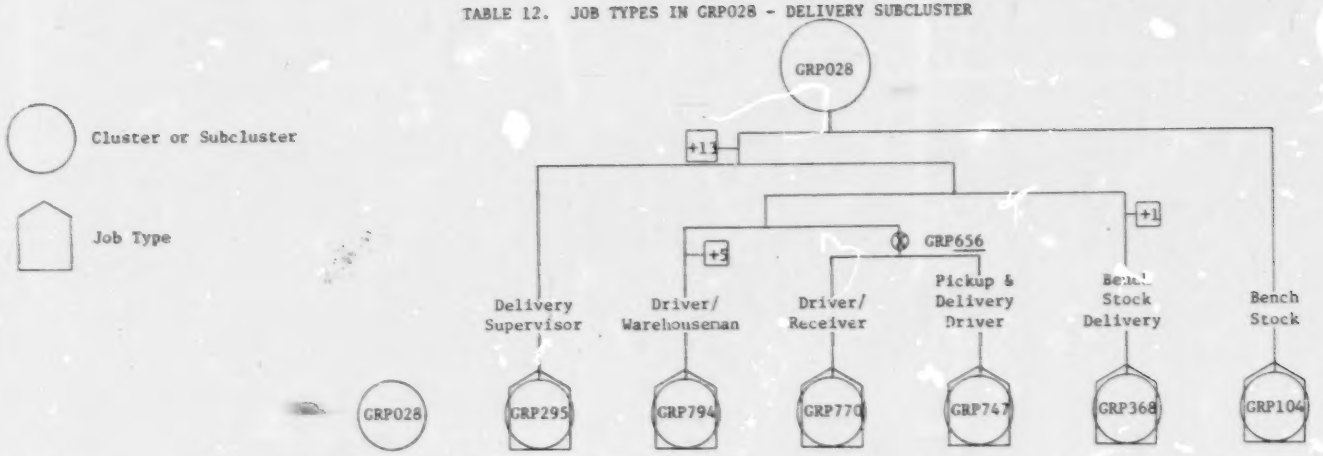
DUTY	GROUP NO / N	019 868	028 213	029 450	030 205
		%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	43(5)	32(6)	52(6)	-
B	DIRECTING AND IMPLEMENTING				
C	INSPECTING AND EVALUATING	45(5)	-	67(8)	-
D	TRAINING				
E	INVENTORYING EQUIPMENT AND SUPPLIES				
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS				
G	PERFORMING ITEM ACCOUNTING FUNCTIONS				
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS	32(4)	33(10)	-	-
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS				
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS				
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS				
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS				
M	OPERATING COMPUTER SUPPORT EQUIPMENT				
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT	11(3)	-	20(6)	-
O	PERFORMING MATERIEL CONTROL FUNCTIONS				
P	PERFORMING MANUAL ACCOUNTING PROCEDURES				
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS				
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES				
S	RECEIVING PROPERTY	56(21)	27(5)	50(7)	100(68)
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY				
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS				
V	RESEARCHING PUBLICATIONS AND FILES				
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT	63(27)	26(5)	94(47)	-
X	DELIVERING SUPPLIES AND EQUIPMENT	57(18)	92(63)	-	-

TABLE 11. TASK COMPARISON OF GRP 019 -- WAREHOUSING AND SUPPLY CLUSTER

Line No.	TASK	TITLE	GROUP NO / N	019 868	028 213	029 450	030 205
				%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	X6	DRIVE CAR OR PICKUP TRUCK		35(3)	83(9)	-	-
2	W24	PLACE PROPERTY IN WAREHOUSE BINS, RACKS OR BAYS		50(2)	-	87(4)	-
3	X3	DELIVER PROPERTY ITEMS		30(2)	87(9)	-	-
4	X13	PICKUP PROPERTY		28(2)	75(7)	-	-
5	[a]X10	OBTAIN AUTHORIZED REPRESENTATIVE SIGNATURES FOR EQUIPMENT		27(2)	70(7)	-	-
6	X11	OPERATE MATERIEL HANDLING EQUIPMENT		42(2)	72(7)	37(1)	-
7	W27	PREPARE OR CORRECT BIN LABELS		38(2)	-	72(3)	-
8	[a]S2	COMPARE PHYSICAL COUNT WITH INFORMATION IN RECEIPT DOCUMENTS		38(2)	-	-	84(5)
9	S10	MOVE PROPERTY TO AREAS SUCH AS DELIVERY OR STORAGE		33(2)	-	-	80(5)
10	S5	ENTER INFORMATION ON RECEIVING DOCUMENTS		27(1)	-	-	82(4)
11	S15	PREPARE PROPERTY FOR INCHECKING		24(1)	-	-	75(4)

[a] Shortened when necessary.

TABLE 12. JOB TYPES IN GRP028 - DELIVERY SUBCLUSTER



KPATH	1448-1660	1600-1621	1573-1583	1448-1475	1476-1572	1590-1599	1635-1660
n	213	22	11	28	97	10	26
645X0/647X0	38/174	1/21	0/11	3/25	5/92	3/6	21/5
Average Grade	3.8	5.2	3.8	3.6	3.5	3.3	3.9
Time in DAFSC	35	65	39	25	26	16	48
Average Number Tasks	15	30	25	22	9	7	11
The Number Group Supervise	1.4	5.6	.4	.0	.8	.1	1.5
T25[a]	3	8	5	5	2	2	3
T50[a]	9	19	12	10	5	3	7
T75[a]	26	40	25	24	7	7	19

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 13. DUTY COMPARISON OF GRP028 -- DELIVERY SUBCLUSTER

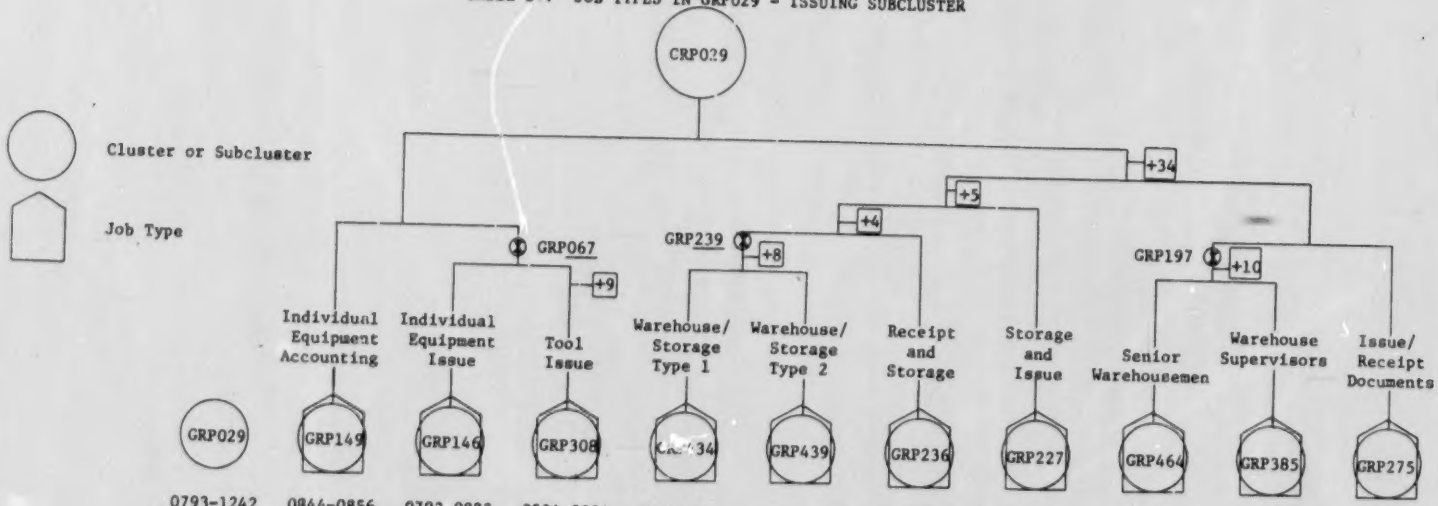
DUTY	GROUP NO / N	028 213	295 22	794 11	770 28	747 97	368 10	104 26
		%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	-	82(13)	-	-	-	-	-
B	DIRECTING AND IMPLEMENTING	32(6)	100(27)	-	-	-	-	46(13)
C	INSPECTING AND EVALUATING	-	86(6)	-	-	-	-	-
D	TRAINING	-	77(6)	-	-	-	-	-
E	INVENTORYING EQUIPMENT AND SUPPLIES							
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS							
G	PERFORMI[illegible]YSTEM ACCOUNTING FUNCTIONS							
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS							
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS	33(10)	-	-	-	-	80(31)	100(59)
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS							
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS							
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS							
M	OPERATING COMPUTER SUPPORT EQUIPMENT							
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT							
O	PERFORMING MATERIEL CONTROL FUNCTIONS							
P	PERFORMING MANUAL ACCOUNTING PROCEDURES							
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS							
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES							
S	RECEIVING PROPERTY	27(5)	-	-	94(25)	-	-	-
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY							
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS							
V	RESEARCHING PUBLICATIONS AND FILES							
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT	26(5)	-	100(37)	-	-	-	-
X	DELIVERING SUPPLIES AND EQUIPMENT	92(63)	100(34)	100(47)	100(54)	100(93)	100(59)	38(9)

TABLE 14. TASK COMPARISON OF GRP028 -- DELIVERY SUBCLUSTER

Line No.		TASK TITLE	GROUP NO / N	028 213	295 22	794 11	770 28	747 97	368 10	104 26
				%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	X6	DRIVE CAR OR PICKUP TRUCK		83(9)	91(4)	100(5)	96(6)	92(13)	90(18)	26(2)
2	X3	DELIVER PROPERTY ITEMS		87(9)	91(3)	100(6)	100(6)	96(13)	90(20)	30(2)
3	X13	PICKUP PROPERTY		75(7)	86(3)	100(5)	96(6)	79(10)	40(6)	31(2)
4	[a]X10	OBTAIN AUTHORIZED SIGNATURES FOR EQUIPMENT		70(7)	82(3)	82(4)	92(5)	87(11)	-	-
5	X11	OPERATE MATERIEL HANDLING EQUIPMENT		72(7)	91(3)	82(4)	100(6)	80(10)	10(1)	-
6	X1	ARRANGE FOR ADDITIONAL VEHICLE SUPPORT		35(2)	91(3)	45(2)	57(3)	27(2)	10(1)	-
7	B36	SUPERVISE USE OF MATERIELS HANDLING EQUIPMENT		-	86(3)	-	-	-	-	-
8	X4	DELIVER PARTS ACCESSORIES OR EQUIPMENT TO AIRCRAFT		65(6)	59(2)	100(6)	75(4)	81(9)	40(5)	-
9	X9	MOVE PROPERTY TO TRANSPORTATION		66(5)	77(2)	100(5)	89(5)	79(8)	10(1)	-
10	I8	INVENTORY OR REPLENISH BENCH STOCKS		15(2)	-	-	-	-	70(16)	88(13)
11	I21	PREPARE TURN-IN DOCUMENTS FOR BENCH STOCK EXCESS		13(1)	-	-	-	-	80(7)	69(8)
12	I3	ESTABLISH BENCH STOCKS IN COORDINATION WITH SUPPORTED ACTIVITIES		13(1)	-	-	-	-	30(2)	88(9)

[a]Shortened when necessary.

TABLE 15. JOB TYPES IN GRP029 - ISSUING SUBCLUSTER



	GRP029	GRP149	GRP146	GRP308	[illegible]34	GRP439	GRP236	GRP227	GRP464	GRP385	GRP275
KPATH	0793-1242	0844-0856	0793-0823	0824-0834	0861-0975	0976-1020	1029-1077	1078-1093	1099-1121	1122-1178	1189-1208
N	450	13	31	11	115	45	49	16	23	57	20
645XO/647XO	84/365	10/2	22/9	7/4	0/115	2/43	3/46	8/8	1/22	1/56	12/8
Average Grade	3.9	3.6	4.2	3.8	3.6	3.2	3.4	3.4	5.1	5.2	3.8
Time in DAFSC	44.3	22.7	39.9	24.4	38.5	20.3	28.5	20.1	104.8	81.9	32.6
Average Number Tasks	38	11	59	18	27	11	45	29	96	59	72
The Number Group Supervise	1.3	1.5	1.3	.1	.7	.3	.2	.6	2.6	3.6	1.5
T25[a]	10	2	17	4	6	3	12	8	26	16	20
T50[a]	33	5	52	10	15	7	32	23	61	37	55
T75[a]	88	9	115	28	30	14	75	57	128	79	117

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 16. DUTY COMPARISON OF GRP029 -- ISSUING SUBCLUSTER

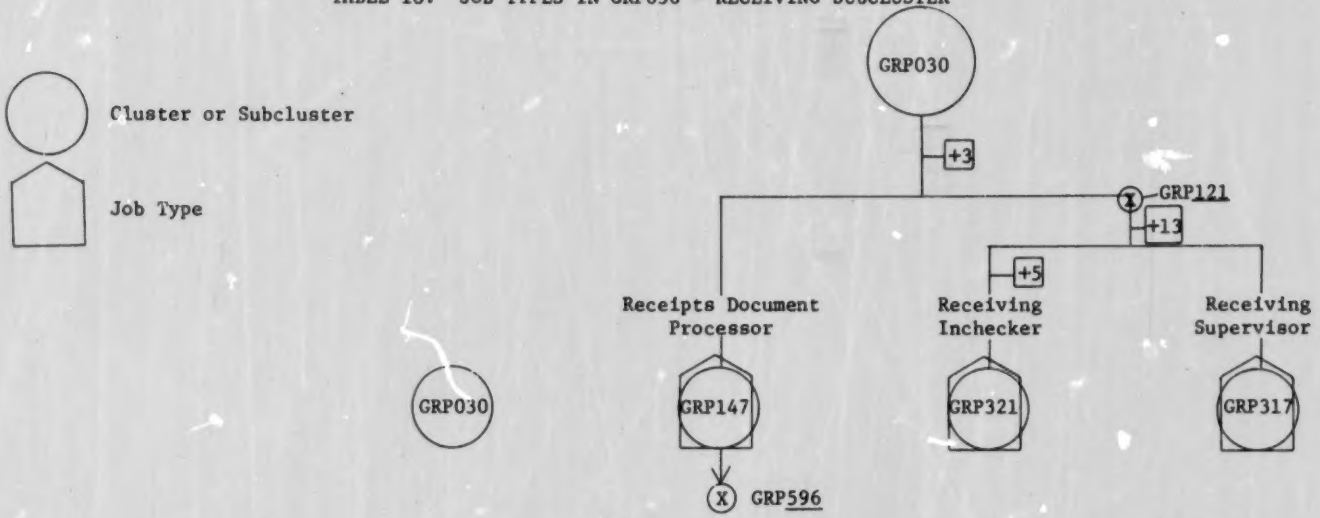
DUTY	GROUP NO / N	029 450	149 13	146 31	308 11	434 115	439 45	236 49	227 16	464 23	385 57	275 20
		%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	-	-	-	-	-	-	-	-	91(5)	95(7)	-
B	DIRECTING AND IMPLEMENTING	52(6)	-	80(7)	-	-	-	-	62(6)	95(10)	97(15)	95(6)
C	INSPECTING AND EVALUATING	-	-	-	-	-	-	-	-	-	90(6)	85(5)
D	TRAINING	-	-	-	-	-	-	-	-	-	85(6)	-
E	INVENTORYING EQUIPMENT AND SUPPLIES	67(8)	-	97(10)	91(15)	48(5)	-	84(9)	87(12)	87(9)	96(11)	95(9)
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS											
G	PERFORMING ITEM ACCOUNTING FUNCTIONS	-	-	71(6)	-	-	-	-	-	-	-	95(6)
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS	-	-	77(5)	-	-	-	-	-	-	-	-
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS	-	-	-	-	-	-	-	93(13)	-	-	100(11)
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS											
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS											
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS											
M	OPERATING COMPUTER SUPPORT EQUIPMENT											
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT	20(6)	100(85)	97(22)	100(45)	-	-	-	-	-	-	-
O	PERFORMING MATERIEL CONTROL FUNCTIONS											
P	PERFORMING MANUAL ACCOUNTING PROCEDURES											
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS											
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES											
S	RECEIVING PROPERTY	50(7)	-	74(9)	45(7)	-	-	95(18)	75(10)	100(16)	-	100(15)
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY	-	-	-	-	-	-	91(8)	-	91(8)	-	-
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS	-	-	70(5)	-	-	-	-	-	-	-	-
V	RESEARCHING PUBLICATIONS AND FILES											
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT	94(47)	-	84(11)	64(11)	100(77)	100(91)	100(36)	100(33)	100(22)	100(37)	100(18)
X	DELIVERING SUPPLIES AND EQUIPMENT	-	-	-	-	43(5)	-	80(6)	-	100(7)	-	-

TABLE 17. TASK COMPARISON OF GRP029 -- ISSUING SUBCLUSTER

Line No.		TASK TITLE	GROUP NO	029	149	146	308	434	439	236	227	464	385	275
			N	450	13	31	11	15	45	49	16	23	57	20
				%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	W24	PLACE PROPERTY IN WAREHOUSE BINS, RACKS OR BAYS		87(4)	-	61(1)	-	99(5)	100(11)	98(3)	100(4)	96(1)	95(2)	80(1)
2	W27	PREPARE OR CORRECT BIN LABELS		72(3)	-	54(1)	36(2)	91(4)	84(7)	83(2)	68(2)	72(1)	78(1)	90(1)
3	[a]N9	MAINTAIN FILES TO ACCOUNT FOR PERSONAL RETENTION OF ITEMS		-	92(13)	58(1)	27(2)	--	-	-	-	-	-	-
4	N10	MAINTAIN INDIVIDUAL CLOTHING AND EQUIPMENT RECORDS AF FORM 538		-	92(12)	65(2)	-	-	-	-	-	-	-	-
5	N5	DOCUMENT ISSUE OR TURN-IN OF PERSONAL RETENTION ITEMS		-	76(12)	61(2)	-	-	-	-	-	-	-	-
6	N4	DOCUMENT ISSUE OR TURN-IN OF ORGANIZATIONAL EQUIPMENT ITEMS		-	76(11)	74(2)	55(4)	-	-	-	-	-	-	-
7	N6	DOCUMENT ISSUE OR TURN-IN OF TOOLS AND TOOL KITS		-	8(1)	74(2)	100(8)	-	-	-	-	-	-	-
8	N15	PROCESS INCOMING AND OUTGOING CLEARANCES		-	85(9)	77(2)	72(5)	-	-	-	-	-	-	-
9	E10	COUNT PROPERTY		45(1)	-	87(2)	73(5)	-	-	69(2)	62(2)	60(1)	-	85(1)
10	N7	MAINTAIN CUSTODY RECEIPT LISTING OF TOOL KIT TRANSACTIONS		-	-	71(2)	91(7)	-	-	-	-	-	-	-
11	N1	ASSEMBLE OR ISSUE TOOL KITS		-	-	68(2)	100(8)	-	-	-	-	-	-	-
12	W18	LOCATE ITEMS TO BE ISSUED, SHIPPED OR TRANSFERRED		67(3)	-	-	-	89(5)	51(5)	83(2)	75(3)	-	88(2)	80(1)
13	W21	MOVE PROPERTY TO PICKUP AND DELIVERY UNITS		64(3)	-	-	-	89(4)	84(9)	69(2)	44(2)	78(1)	80(2)	60(1)
14	W23	PLACE PROPERTY IN SPECIAL STORAGE FACILITIES		64(3)	-	-	-	-	82(8)	75(2)	-	-	-	-
15	W22	PLACE LOCATION SYMBOLS ON STORAGE FACILITIES		58(2)	-	-	-	80(3)	78(7)	-	44(2)	-	82(2)	-
16	W25	PREPARE AND INPUT WAREHOUSE LOCATION DATA		66(3)	-	-	-	86(4)	67(7)	80(2)	87(3)	-	82(2)	-
17	[a]S2	PREPARE PHYSICAL COUNT WITH INFORMATION IN RECEIVING DOCUMENT		-	-	48(1)	27(2)	-	-	67(2)	56(2)	96(1)	-	85(1)
18	S6	EXAMINE PROPERTY RECEIVED FOR DAMAGE		-	-	-	27(1)	-	-	-	-	96(1)	-	-
19	X11	OPERATE MATERIEL HANDLING EQUIPMENT		37(1)	-	-	-	40(2)	8(1)	-	-	91(1)	60(1)	-
20	W5	CONDUCT RE-WAREHOUSING OR SET UP NEW WAREHOUSE		51(1)	-	-	-	-	-	61(1)	-	100(1)	95(2)	-
21	B34	SUPERVISE SELECTION OF ITEMS FOR ISSUE		-	7(1)	-	-	-	-	-	-	65(1)	80(2)	-
22	I19	PREPARE ISSUE INPUTS FOR COMPUTER PROCESSING		-	-	32(1)	27(2)	-	-	-	75(3)	-	80(2)	95(2)
23	M5	OPERATE REMOTE KEYBOARD PRINTERS		-	-	-	-	-	8(1)	-	62(3)	-	-	90(2)
24	W26	PREPARE ISSUE DOCUMENTS		46(2)	-	64(1)	-	-	-	61(2)	94(4)	-	-	90(2)
25	S3	COMPLETE TURN-IN DOCUMENTS		-	-	-	-	-	-	-	-	-	-	95(2)

[a] Shortened when necessary.

TABLE 18. JOB TYPES IN GRP030 - RECEIVING SUBCLUSTER



KPATH	1243-1447	1424-1444	1243-1379	1385-1410
N	205	21	137	26
645X0/647X0	6/199	1/20	1/136	0/26
Average Grade	3.9	4.0	3.6	5.6
Time in DAFSC	49.8	49.4	31.5	135.6
Average Number Tasks	25.9	12.9	23.4	56.1
The Number Group Supervise	1.3	.5	.7	4.6
T25[a]	6	3	5	12
T50[a]	13	6	11	28
T75[a]	30	17	20	57

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 19. DUTY COMPARISON OF GRP030 -- RECEIVING SUBCLUSTER

DUTY	GROUP NO / N	030 205	147 21	321 137	317 26
		%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	-	-	-	92(11)
B	DIRECTING AND IMPLEMENTING	-	-	-	100(21)
C	INSPECTING AND EVALUATING	-	-	-	96(6)
D	TRAINING	-	-	-	88(9)
E	INVENTORYING EQUIPMENT AND SUPPLIES				
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS				
G	PERFORMING ITEM ACCOUNTING FUNCTIONS	-	24(6)	-	-
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS				
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS				
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS				
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS				
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS				
M	OPERATING COMPUTER SUPPORT EQUIPMENT	-	81(21)	-	-
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT				
O	PERFORMING MATERIEL CONTROL FUNCTIONS				
P	PERFORMING MANUAL ACCOUNTING PROCEDURES				
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS				
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES				
S	RECEIVING PROPERTY	100(68)	100(56)	100(79)	100(35)
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY				
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS				
V	RESEARCHING PUBLICATIONS AND FILES				
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT				
X	DELIVERING SUPPLIES AND EQUIPMENT				

TABLE 20. TASK COMPARISON OF GRP030 -- RECEIVING SUBCLUSTER

Line No.		TASK TITLE	GROUP NO / N	030 205	147 21	321 137	317 26
				%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	[a]S2	COMPARE PHYSICAL COUNT WITH INFORMATION IN RECEIVING DOCUMENTS		84(5)	43(3)	93(6)	92(2)
2	S10	MOVE PROPERTY TO AREAS SUCH AS DELIVERY OR STORAGE		80(5)	38(2)	92(6)	81(2)
3	S5	ENTER INFORMATION ON RECEIVING DOCUMENTS		82(4)	62(5)	89(5)	88(2)
4	S15	PREPARE PROPERTY FOR INCHECKING		75(4)	-	91(5)	77(2)
5	S7	FILE, UPDATE, CORRECT OR INPUT RECEIPT DUE-IN CARDS		55(3)	95(12)	53(2)	73(2)
6	S18	PROCESS AND CLEAR REJECTED PROPERTY		53(3)	76(11)	50(2)	92(2)
7	S4	DISTRIBUTE DOCUMENTS		71(4)	81(7)	-	84(2)
8	M5	OPERATE REMOTE KEYBOARD PRINTERS		37(2)	71(7)	-	-
9	M4	OPERATE REMOTE CARD OR TAPE READERS		25(1)	66(6)	-	-
10	M3	OPERATE KEYPUNCH MACHINES		26(1)	57(6)	-	-
11	S21	SEGREGATE INCOMING PROPERTY		73(4)	-	86(5)	70(1)
12	B3	COUNSEL SUBORDINATES		-	-	-	100(2)
13	S22	SELECT PROPER METHOD AND EQUIPMENT FOR MOVEMENT OF PROPERTY		73(4)	-	85(5)	92(2)
14	C29	WRITE AIRMEN PERFORMANCE REPORTS		-	-	-	92(2)

[a]Shortened when necessary.

performed rather similar duties relating to individual equipment and tools with a high task overlap on *N*4 and *N*15. Substantial differences in the total number of tasks performed, degree of specialization, and level of participation in the tasks at lines 1 through 11 of Table 17 establish their individuality. Inspection of Table 17 shows that the second minor subcluster of four job type groups (GRP434, GRP439, GRP236, and GRP227) have in common their high level of participation in task W24, the main task for subcluster GRP029, and also W18, W21, W25, etc. They differ significantly in average number of tasks performed, also in their involvement in tasks such as W23, W22, W26, etc. The third minor subcluster (GRP646, GRP385, GRP275) consists of two groups of experienced, high average grade 647X0 personnel, and, strangely enough, a group (GRP275) of relatively inexperienced, mixed 645X0/647X0 airmen of much lower grade who do a similar job. As pointed out earlier, the job type groups that form during the automatic clustering process are determined only by the tasks performed, not by background variables such as AFSC or grade. In this instance, because of the large number of tasks performed by these three groups, and the effect of rounding the consequently small time spent percentages, Table 17 is not very useful for displaying similarities and differences between the job types. A clearer picture is revealed by examining Table 16 together with the *%N* column Table 17. These show that job type GRP275 does in fact have much in common with GRP464 and GRP385.

The Receiving GRP030 Subcluster consists almost entirely of 647X0 personnel employed on the three job types shown in Table 18. The Receiving Supervisors GRP317 have an average of 11 years experience in their DAFS and perform supervisory, as well as normal receiving, duties and tasks.

VII. COMMENTS ON INVENTORY GRP053 SUBCLUSTER

This homogeneous subcluster consists only of inventory workers in two job type groups, Inventory Clerks GRP421 and Inventory Supervisors GRP1042. See Tables 21 through 23 for branch diagram, duty comparison and task comparison of this subcluster. Almost equal numbers of 645X0 and 647X0 airmen are employed as clerks, but the supervisors are predominantly 645X0. The supervisors do most of the tasks of the clerks, but average less time on each task.

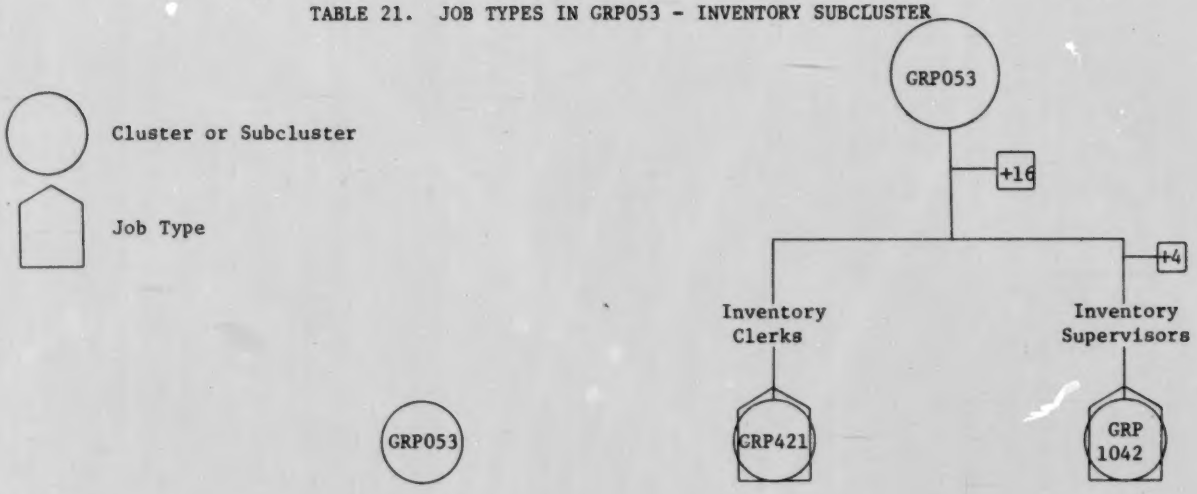
VIII. COMMENTS ON SUPERVISORS AND SPECIALISTS GRP037 CLUSTERS

Tables 24 through 26 show the branch diagram, duty comparison and task comparison for the Supervisors and Specialists GRP037 cluster, while Tables 27 through 29, 30 through 32 and 33 through 35 show these diagrams and comparisons for the subclusters of GRP037, viz., GRP060, GRP070 and GRP062. GRP037, a large cluster of high-ranking NCOs formed at stage GRP037 of the automated clustering process was found, on analysis, to contain a high proportion of members whose main role was to supervise. These members performed essentially the same duties and tasks no matter what work area they actually supervised. Also in the cluster were a number of "specialist" job types, where the word "specialist" is used to connote "highly experienced men concentrating on a homogeneous group of difficult tasks" rather than in the usual Air Force sense of describing 5-skill level personnel.

The 17 job types identified fell into 3 rather heterogeneous subclusters. Most of the 20% of the 647X0 NCOs in the main cluster had jobs within the Senior Supervisors and Specialists GRP060 Subcluster, where they lost their AFSC identity to merge with 645X0 supervisors in groups such as Senior Supervisor Type 2 GRP337, Senior Supervisor Type 1 GRP260, and Bench Stock Supervisor GRP379. Those 647X0 NCOs in identifiable supervisory jobs; e.g., Delivery Supervisor GRP295, clustered with their workers in the Warehousing and Supply GRP019 reported earlier; whereas 645X0 supervisors in identifiable jobs tended to cluster with other supervisors in GRP037, rather than with their workers; e.g., PCAM/Document Supervisor GRP495, tended to cluster with other supervisors in GRP037 rather than with their workers in PCAM Operators GRP818 (Table 3). Most 645X0 supervisors could not be identified with their workers in the same way as the 647X0 supervisory group in each of the subclusters of the Warehousing and Supply GRP019 Cluster.

Inspection of the Branch Diagram and background information for the Supervisors and Specialists GRP037 Cluster (Table 24) shows that it contains a less experienced and lower grade Requisitioning GRP062 Subcluster, who have less of a supervisory role than Senior Supervisor and Specialists GRP060 and Inventory Management Supervisors and Clerks GRP070. While their work is not clearly related to that of the other two clusters, inspection of Tables 25 and 26 shows some small overlaps, the aggregate of which is sufficient to cause clustering.

TABLE 21. JOB TYPES IN GRP053 - INVENTORY SUBCLUSTER



KPATH	0001-0090	0003-0059	0064-0076
N	90	57	13
645X0/647X0	55/34	30/27	10/3
Average Grade	4.1	3.9	5.2
Time in DAFSC	48.4	44.4	62.8
Average Number Tasks	26.7	24.9	47.5
The Number Group Supervise	1.0	.6	3.6
T25[a]	5	5	10
T50[a]	12	11	25
T75[a]	32	21	47

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 22. DUTY COMPARISON OF GRP053 -- INVENTORY SUBCLUSTER

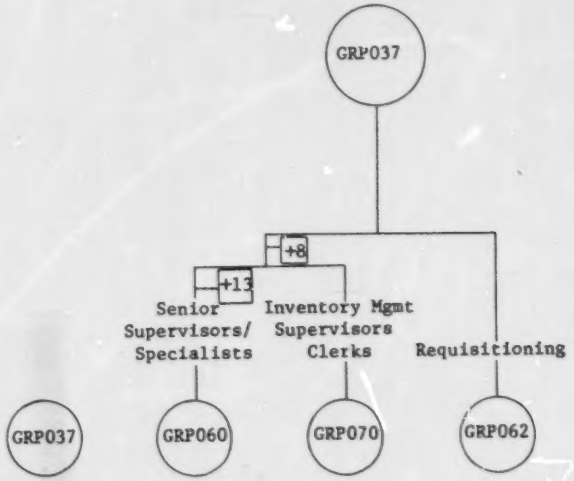
DUTY	GROUP NO / N	053 90	421 57	1042 13
		%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	-	-	100(12)
B	DIRECTING AND IMPLEMENTING	55(7)	-	100(18)
C	INSPECTING AND EVALUATING	-	-	100(8)
D	TRAINING	-	-	34(8)
E	INVENTORYING	100(72)	100(84)	100(47)

TABLE 23. TASK COMPARISON OF GRP053 -- INVENTORY SUBCLUSTER

Line No.		TASK TITLE	GROUP NO / N	053 90	421 57	1042 13
				%N(%T)	%N(%T)	%N(%T)
1	E28	RESEARCH INVENTORY DISCREPANCIES		82(5)	96(6)	100(3)
2	E9	CORRECT INVENTORY DISCREPANCIES		81(5)	96(6)	100(3)
3	[a]E10	COUNT PROPERTY		90(6)	95(5)	-
4	[a]E2	COMPARE COUNTS WITH RECORDS		82(4)	95(5)	84(2)
5	[a]E13	FIND SOURCES OF DISCREPANCIES		77(4)	87(5)	100(3)
6	[a]E29	REVIEW ADJUSTMENT REGISTERS		64(3)	70(3)	100(3)
7	E30	SUPERVISE INVENTORIES		42(2)	36(2)	84(3)
8	[a]B2	COORDINATE WITH OTHER SECTIONS		42(1)	-	100(2)
9	[a]B32	SUPERVISE SCHEDULED CYCLE INVENTORY		32(1)	-	77(2)

[a]Task Title Abbreviated.

TABLE 24. JOB TYPE SUBCLUSTERS IN GRP037 - SUPERVISORS AND SPECIALISTS CLUSTER



KPATH	0091-0701	0091-0456	0470-0585	0594-0701
N	611	366	116	108
645X0/647X0	487/122	263/103	102/13	105/2
Average Grade	5.7	6.1	5.4	4.6
Time in DAFSC	85.6	93.8	87.3	55.7
Average Number Tasks	49.8	36.3	120.9	23.6
The Number Group Supervise	3.2	3.9	2.7	1.5
T25[a]	17	12	43	7
T50[a]	56	37	112	19
T75[a]	142	96	220	48

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

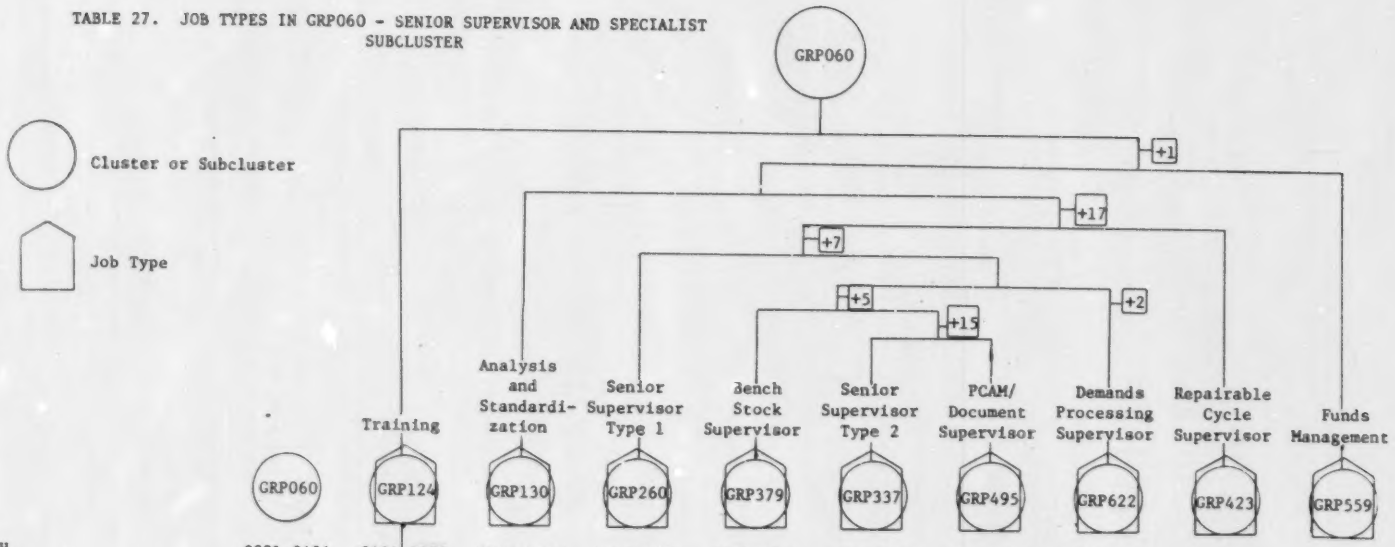
TABLE 25. DUTY COMPARISON OF GRP037 -- SUPERVISORS AND SPECIALISTS CLUSTER

DUTY	GROUP NO / N	037 611	060 366	070 116	062 108
		%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	79(11)	90(15)	80(5)	-
B	DIRECTING AND IMPLEMENTING	94(24)	97(30)	96(13)	80(16)
C	INSPECTING AND EVALUATING	80(11)	90(14)	82(7)	-
D	TRAINING	69(9)	77(13)	-	-
E	INVENTORYING EQUIPMENT AND SUPPLIES	-	-	88(7)	-
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS	51(5)	50(7)	-	-
G	PERFORMING ITEM ACCOUNTING FUNCTIONS	47(5)	-	91(7)	-
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS	48(12)	-	91(8)	100(52)
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS	-	-	85(6)	-
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS				
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS				
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS				
M	OPERATING COMPUTER SUPPORT EQUIPMENT				
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT				
O	PERFORMING MATERIEL CONTROL FUNCTIONS				
P	PERFORMING MANUAL ACCOUNTING PROCEDURES				
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS				
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES				
S	RECEIVING PROPERTY	-	-	77(5)	-
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY				
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS	-	-	80(5)	-
V	RESEARCHING PUBLICATIONS AND FILES				
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT	-	-	72(6)	-
X	DELIVERING SUPPLIES AND EQUIPMENT				

TABLE 26. TASK COMPARISON OF GRP037 -- SUPERVISORS AND SPECIALISTS CLUSTER

Line No.		TASK TITLE	GROUP NO / N	037 611	060 366	070 116	062 108
				%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	B2	COORDINATE WITH OTHER SECTIONS OR AGENCIES		83(3)	91(4)	85(1)	54(2)
2	B3	COUNSEL SUBORDINATES		63(2)	75(2)	59(1)	-
3	B4	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES		66(2)	77(2)	73(1)	33(1)
4	B20	INTERPRET POLICIES, DIRECTIVES OR PROCEDURES FOR SUBORDINATES		59(2)	71(2)	59(1)	-
5	B22	PREPARE REQUISITIONS FOR SUPPLIES OR EQUIPMENT		39(1)	-	72(1)	60(3)
6	H15	PREPARE AND SUBMIT REQUISITIONS		26(1)	-	57(1)	79(6)
7	H25	PROCESS OFF-LINE REQUISITIONS		19(1)	-	-	70(4)

TABLE 27. JOB TYPES IN GRP060 - SENIOR SUPERVISOR AND SPECIALIST SUBCLUSTER



	GRP060	GRP124	GRP130	GRP260	GRP379	GRP337	GRP495	GRP622	GRP423	GRP559
KPATH	0091-0456	0424-0456	0347-0409	0284-0307	0250-0266	0091-0220	0221-0234	0272-0281	0315-0329	0410-0422
N	366	33	63	24	17	130	14	10	15	13
645X0/647X0	263/103	17/16	56/7	11/13	11/6	80/50	13/1	10/0	12/3	13/0
Average Grade	6.1	5.0	6.3	5.9	5.3	6.9	5.4	5.4	5.8	5.0
Time in DAFSC	93.8	49.2	94.5	131.8	93.8	100.8	106.9	85.8	102.7	83.5
Average Number Tasks	36.3	22.2	30.3	18.5	40.0	44.7	26.1	37.9	44.5	27.8
The Number Group Supervise	3.9	1.1	.8	4.3	5.2	5.6	6.1	8.6	4.2	.5
T25[a]	12	5	7	5	10	10	7	8	9	4
T50[a]	37	13	20	14	25	28	16	20	25	11
T75[a]	96	28	47	35	59	60	34	41	62	26

[a] Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

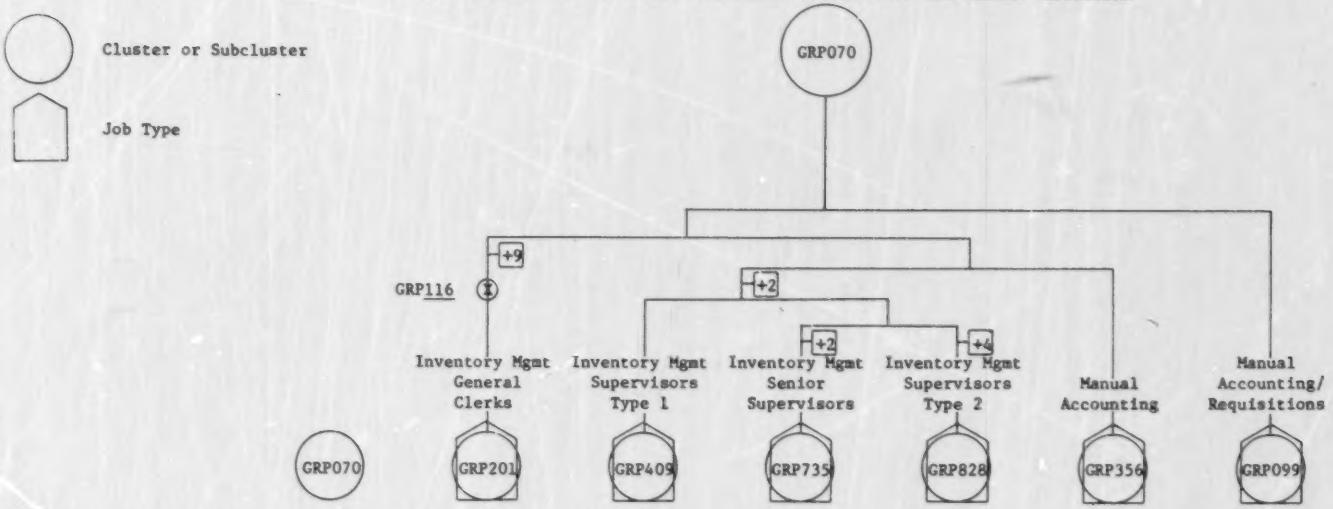
TABLE 28. DUTY COMPARISON OF GRP060 -- SENIOR SUPERVISOR AND SPECIALIST SUBCLUSTER

DUTY	GROUP NO / N	060 366	124 33	130 63	260 24	379 17	337 130	495 14	622 10	423 15	559 13
		%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	90(15)	56(5)	75(7)	92(31)	88(11)	100(21)	100(15)	100(10)	87(9)	92(9)
B	DIRECTING AND IMPLEMENTING	97(30)	79(15)	99(30)	97(36)	100(30)	100(38)	100(32)	100(21)	100(22)	100(26)
C	INSPECTING AND EVALUATING	90(14)	49(5)	90(22)	71(7)	94(8)	99(19)	85(8)	90(8)	87(5)	84(9)
D	TRAINING	77(13)	100(66)	-	-	75(7)	83(9)	100(18)	100(14)	93(8)	61(6)
E	INVENTORYING EQUIPMENT AND SUPPLIES										
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS	50(7)	-	86(25)	-	-	-	-	-	-	54(6)
G	PERFORMING ITEM ACCOUNTING FUNCTIONS	-	-	-	-	-	-	71(15)	50(5)	-	-
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS										
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS	-	-	-	-	100(20)	-	-	100(20)	100(30)	-
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS										
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS										
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS	-	-	-	-	-	-	-	-	-	100(34)
M	OPERATING COMPUTER SUPPORT EQUIPMENT	-	-	-	-	-	-	43(6)	-	-	-
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT										
O	PERFORMING MATERIEL CONTROL FUNCTIONS										
P	PERFORMING MANUAL ACCOUNTING PROCEDURES										
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS										
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES										
S	RECEIVING PROPERTY										
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY										
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS	-	-	-	-	-	-	-	70(5)	-	-
V	RESEARCHING PUBLICATIONS AND FILES										
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT										
X	DELIVERING SUPPLIES AND EQUIPMENT	-	-	-	-	59(6)	-	-	-	-	-

TABLE 29. TASK COMPARISON OF GRP060 -- SENIOR SUPERVISOR AND SPECIALIST SUBCLUSTER

Line No.		TASK TITLE / GROUP NO	060	124	130	260	379	337	495	622	423	559
		N	366	33	63	24	17	130	14	10	15	13
			%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	B2	COORDINATE WITH OTHER SECTIONS OR AGENCIES	91(4)	55(3)	94(5)	92(7)	100(3)	98(3)	93(6)	80(2)	87(2)	84(4)
2	D13	MAINTAIN TRAINING RECORDS, CHARTS OR GRAPHS	40(1)	94(6)	-	-	-	-	57(3)	80(2)	-	-
3	D4	CONDUCT ON-THE-JOB TRAINING (OJT)	47(2)	79(5)	-	33(2)	65(2)	47(1)	93(4)	80(2)	60(2)	-
4	D19	SUPERVISE OJT	38(1)	76(5)	-	25(1)	-	-	79(3)	60(2)	-	-
5	D17	RATE TRAINING PROGRESS OF INDIVIDUALS	30(1)	73(5)	-	-	-	-	50(2)	70(2)	-	-
6	D15	PLAN OR SCHEDULE OJT	30(1)	73(5)	-	-	-	-	71(3)	-	-	-
7	B11	DRAFT CORRESPONDENCE	70(3)	45(2)	89(6)	-	59(2)	87(3)	-	-	-	70(3)
8	C1	ANALYSE IG REPORTS	44(1)	-	84(3)	-	-	65(2)	-	-	-	-
9	A6	DETERMINE WORK PRIORITIES	64(2)	-	-	75(6)	70(2)	87(2)	57(2)	90(2)	60(2)	62(1)
10	B3	COUNSEL SUBORDINATES	75(2)	36(1)	-	92(6)	94(2)	98(2)	100(5)	90(3)	80(2)	53(2)
11	A13	PLAN OR SCHEDULE WORK ASSIGNMENTS	59(2)	-	-	75(5)	76(2)	84(2)	78(3)	90(2)	-	-
12	B4	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	77(2)	-	-	79(5)	70(2)	95(3)	79(3)	90(3)	67(2)	69(2)
13	I3	ESTABLISH BENCH STOCKS IN COORDINATION WITH SUPPORTED ACTIVITIES	-	-	-	-	94(3)	-	-	-	-	-
14	I8	INVENTORY OR REPLENISH BENCH STOCKS	-	-	-	-	88(3)	-	-	-	-	-
15	B31	SUPERVISE REPAIR CYCLE OR BENCH STOCK ACTIVITIES	-	-	-	-	82(3)	-	-	-	87(3)	-
16	B20	INTERPRET POLICIES, DIRECTIVES OR PROCEDURES FOR SUBORDINATES	-	-	57(3)	25(1)	94(2)	93(3)	85(4)	90(3)	67(2)	-
17	B23	PROVIDE SUPERVISORY INDOCTRINATION OF NEWLY ASSIGNED PERSONNEL	63(2)	-	-	54(3)	71(2)	91(2)	93(4)	70(2)	73(1)	-
18	C29	WRITE AIRMEN PERFORMANCE REPORTS	71(2)	-	-	66(4)	88(2)	90(2)	86(4)	90(3)	80(2)	38(1)
19	I15	OPERATE RADIO, PHONE, INTERCOM OR TELETYPE EQUIPMENT	-	-	-	-	-	-	-	100(4)	-	-
20	I19	PREPARE ISSUE INPUTS FOR COMPUTER PROCESSING	-	-	-	-	-	-	-	100(4)	-	-
21	I11	MAINTAIN SURVEILLANCE OF DIFM ITEMS	-	-	-	-	-	-	-	-	100(4)	-
22	I22	PREPARE TURN-IN DOCUMENTS FOR DIFM ITEMS	-	-	-	-	-	-	-	-	100(3)	-
23	L5	MONITOR GENERAL SUPPORT OR SYSTEM SUPPORT DIVISIONS OF AF STOCK FUND	-	-	-	-	-	-	-	-	-	100(9)
24	L2	DEVELOP STOCK FUND OPERATIONS PROGRAMS	-	-	-	-	-	-	-	-	-	92(6)
25	L7	PREPARE AND MANAGE OPERATING BUDGETS	-	-	-	-	-	-	-	-	-	92(6)

TABLE 30. JOB TYPES IN GRP070 - INVENTORY MANAGEMENT SUPERVISORS AND CLERKS SUBCLUSTER



	GRP070	GRP201	GRP409	GRP735	GRP828	GRP356	GRP099
KPATH	0470-0585	0540-0555	0470-0482	0483-0494	0500-0509	0513-0539	0565-0585
N	116	16	13	12	10	27	21
645X0/647X0	102/13	15/1	13/0	11/1	6/4	24/2	20/1
Average Grade	5.4	4.1	6.6	7.2	5.8	5.3	4.7
Time in DAFSC	87.3	36.9	122.5	121.5	97.7	79.2	70.2
Average Number Tasks	120.9	62.5	96.9	138.2	144.1	229.7	57.8
The Number Group Supervise	2.7	1.6	4.1	3.9	8.3	1.2	1.0
T25[a]	43	20	23	26	32	50	21
T50[a]	112	51	63	68	84	122	53
T75[a]	220	109	122	140	152	235	113

[a] Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time

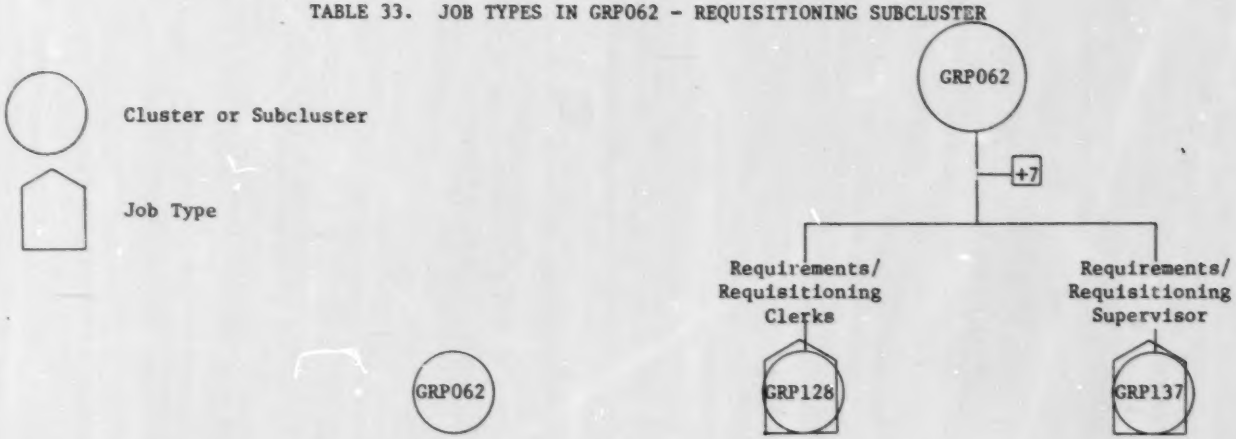
TABLE 31. DUTY COMPARISON OF GRP070 -- INVENTORY MANAGEMENT SUPERVISORS AND CLERKS SUBCLUSTER

DUTY	GROUP NO / N	070 116	201 16	409 13	735 12	828 10	356 27	099 21
		%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	80(5)	-	100(8)	100(11)	100(8)	-	-
B	DIRECTING AND IMPLEMENTING	96(13)	93(11)	100(21)	100(22)	100(15)	100(9)	85(7)
C	INSPECTING AND EVALUATING	82(7)	-	100(12)	100(17)	100(11)	88(5)	-
D	TRAINING	-	-	100(6)	100(7)	100(7)	-	-
E	INVENTORYING EQUIPMENT AND SUPPLIES	88(7)	-	-	100(7)	100(6)	96(8)	95(16)
F	PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS	-	-	100(7)	100(6)	-	-	-
G	PERFORMING ITEM ACCOUNTING FUNCTIONS	91(7)	100(12)	100(6)	-	-	100(8)	95(13)
H	PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS	91(8)	100(14)	92(13)	-	-	100(7)	95(11)
I	PERFORMING MAINTENANCE SUPPORT FUNCTIONS	85(6)	100(11)	-	91(5)	-	92(5)	80(6)
J	PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS							
K	PERFORMING ENGINE MANAGEMENT FUNCTIONS							
L	PERFORMING FUNDS MANAGEMENT FUNCTIONS							
M	OPERATING COMPUTER SUPPORT EQUIPMENT							
N	ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT	-	-	-	-	70(5)	-	-
O	PERFORMING MATERIEL CONTROL FUNCTIONS	-	-	-	-	-	-	80(9)
P	PERFORMING MANUAL ACCOUNTING PROCEDURES							
Q	PREPARING MUNITIONS REPORTS AND DOCUMENTS							
R	PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES							
S	RECEIVING PROPERTY	77(5)	-	-	-	100(7)	100(7)	71(6)
T	INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY	-	-	-	-	100(5)	96(7)	-
U	MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS	80(5)	100(6)	-	-	-	96(7)	52(5)
V	RESEARCHING PUBLICATIONS AND FILES	-	93(5)	-	-	-	-	-
W	ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT	72(6)	-	-	-	100(13)	100(9)	-
X	DELIVERING SUPPLIES AND EQUIPMENT							

TABLE 32. TASK COMPARISON OF GRP070 -- INVENTORY MANAGEMENT SUPERVISORS AND CLERKS SUBCLUSTER

Line No.		TASK TITLE	GROUP NO / N	070 116	201 15	409 13	735 12	828 10	356 27	099 21
				%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	B2	COORDINATE WITH OTHER SECTIONS OR AGENCIES		85(1)	85(2)	100(2)	100(1)	100(1)	96(1)	48(1)
2	B5	DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS OR CHARTS		-	69(2)	92(1)	-	-	-	-
3	G13	MAINTAIN DOCUMENT AND SUPPORT FILES		47(1)	75(1)	-	-	-	85(1)	33(1)
4	B1	CONDUCT OR PARTICIPATE IN STAFF MEETINGS		-	-	92(1)	90(1)	90(1)	-	-
5	B3	COUNSEL SUBORDINATES		-	-	92(1)	100(1)	100(1)	-	-
6	B4	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES		73(1)	75(1)	100(1)	91(1)	100(1)	-	-
7	B11	DRAFT CORRESPONDENCE		70(1)	-	100(2)	100(1)	90(1)	89(1)	-
8	H15	PREPARE AND SUBMIT REQUISITIONS		57(1)	62(1)	61(1)	-	-	85(1)	76(2)
9	P8	PREPARE REQUESTS FOR ISSUE AND TURN-IN		51(1)	-	-	-	-	93(1)	71(2)
10	P4	MANUALLY PREPARE SHIPMENT OR REQUISITION DOCUMENTS		-	-	-	-	-	88(1)	62(1)
11	C29	WRITE AIRMEN PERFORMANCE REPORTS		63(1)	-	100(1)	-	100(1)	-	-

TABLE 33. JOB TYPES IN GRP062 - REQUISITIONING SUBCLUSTER



KPATH	0594-0701	0594-0634	0635-0694
N	108	41	60
645X0/647X0	105/2	40/1	58/1
Average Grade	4.6	4.0	5.1
Time in DAFSC	55.7	43.5	64.2
Average Number Tasks	23.6	11.0	33.6
The Number Group Supervise	1.5	.3	2.3
T25[a]	7	3	10
T50[a]	19	9	26
T75[a]	48	20	57

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 34. DUTY COMPARISON OF GRP062 -- REQUISITIONING SUBCLUSTER

DUTY	GROUP NO / N	062 108	128 41	137 60
		%N(%T)	%N(%T)	%N(%T)
A	ORGANIZING AND PLANNING	-	-	68(6)
B	DIRECTING AND IMPLEMENTING	80(16)	46(7)	100(21)
C	INSPECTING AND EVALUATING	-	-	80(6)
D	TRAINING	-	-	55(6)
G	[a]PERFORMING ITEM ACCOUNTING	-	-	50(5)
H	[a]PERFORMING REQUIREMENTS FUNCTIONS	100(52)	100(79)	100(36)

[a]Duty Title Abbreviated.

TABLE 35. TASK COMPARISON OF GRP062 -- REQUISITIONING SUBCLUSTER

Line No.		TASK TITLE	GROUP NO / N	062 108	128 41	137 60
				%N(%T)	%N(%T)	%N(%T)
1	H15	PREPARE AND SUBMIT REQUISITIONS		79(6)	75(8)	78(3)
2	[a]H6	INITIATE FOLLOW-UP ACTION		67(5)	71(8)	70(2)
3	[a]H7	MAINTAIN DUE-IN, DUE-OUT FILES		57(4)	63(8)	60(2)
4	H25	PROCESS OFF-LINE REQUISITIONS		70(4)	65(6)	78(3)
5	[a]B22	PREPARE REQUISITIONS		60(3)	19(2)	85(4)
6	[a]H21	PREPARE INPUTS TO EXCEPTION CODES		49(3)	51(5)	53(2)
7	[a]H3	COMPLETE FORMS FOR LOCAL PRODUCTION		32(2)	34(4)	-
8	B2	COORDINATE WITH OTHER SECTIONS		54(2)	14(1)	83(3)
9	[a]B5	DEVELOP STATUS BOARDS, CHARTS		39(2)	-	58(2)

[a]Task Title abbreviated.

Table 27 for the Senior Supervisor and Specialist GRP060 Subcluster shows that it contains six supervisor job types clustered in the center, with three specialist job types, Training GRP124, Analysis and Standardization GRP130, Funds Management GRP559, clustered around the fringe. Two supervisor job types Senior Supervisor Type 1 GRP260 and Senior Supervisor Type 2 GRP337 could not be associated with particular work areas and have been called simply Senior Supervisors. Inspection of the tabulated background, duty, and task variables discloses the similarities which caused clustering, also the differences causing recognition as separate job types.

Inventory Management Supervisors and Clerks GRP070 Subcluster (Table 30) also has at its center, three supervisory job types, and a fringe of three specialist jobs. While this appears very similar to GRP060, the background information and Duty Comparison table for GRP037 (Tables 24 and 25) show there are pronounced differences in the average number of tasks performed, and in the duties performed, by GRP070 and GRP060. The large number of tasks performed by GRP070 reduces the usefulness of the time spent on tasks (%T) figure in Table 32 in discriminating between job types; however, the combined information provided by the branch diagram, background variables, and duty and task comparison tables shows clearly the main points of similarity and difference in the six job types.

As stated earlier, there is not a great deal of similarity between the final Requisitioning GRP062 Subcluster (Table 33) and the other two subclusters (GRP060 and GRP070) of cluster GRP037. GRP062 consists almost entirely of 645X0 personnel of considerably lower grade and experience than the other two subclusters. Members work almost exclusively on requisitioning tasks, and the subcluster contains both workers and supervisors. It is possible that this subcluster should be a separate entity in the same way as the Equipment and Authorization Monitors GRP021 Subcluster in Table 3.

IX. COMMENTS ON ALLOWANCE AND AUTHORIZATION GRP021 SUBCLUSTER

The final job type subcluster identified in the original sample consisted of 73 airmen from the 645X0 career ladder who performed one of three jobs associated with allowance and authorization of equipment, hence the name. Tables 36 through 38 show the branch diagram, duty comparison and task comparison for this cluster. Differences between Allowance and Authorization GRP021 and other job type clusters identified in the total sample are displayed in the Branch Diagram and Duty and Task Comparison Tables GRP001 (Tables 3 through 5).

Table 36 shows that the subcluster consists of three nonsupervisory job types. Performance of Duty J "Performing Equipment Review and Authorization Functions," is the key to cluster membership, but each of the three job type groups, Inventory Management/Allowance Authorization GRP078, Allowance Authorization Monitors GRP189, and Allowance Authorization Clerks GRP284, perform a rather different subset of tasks from this duty. GRP189 and GRP284 are highly specialized, performing relatively few tasks, while GRP078 performs a larger number that includes most of the tasks of the other two groups, but spends a smaller proportion of its time on each.

X. COMMENTS ON JOB TYPE GROUPS SUPPLY INSPECTORS GRP031 AND PCAM OPERATORS GRP818

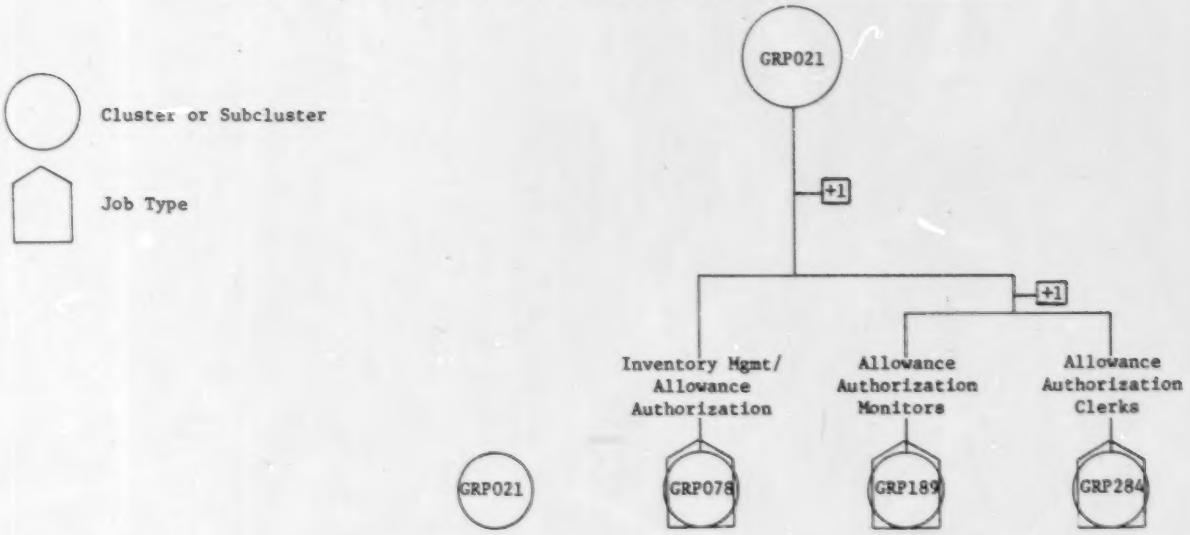
The branch diagram for the total sample GRP001 (Table 3) contained two unique job type groups, Supply Inspectors GRP031 and PCAM Operators GRP818. While general comments on GRP001 occur earlier in this report, a few specific comments on these two job types are pertinent.

GRP031 consists entirely of 647X0 airmen who spend most of their time on tasks either from, or in association with, Duty T "Inspecting Identifying and Classifying Property." They have, on the average, one subordinate and thus spend little time on personnel tasks. GRP818 consists of 10 airmen who all concentrate almost exclusively on the same three tasks (M1, M2, M3) from Duty M "Operating Computer Support Equipment." This was the most homogeneous group identified in the analysis. Background and job characteristics of these two groups are revealed by inspection of the GRP001 tabulations (Tables 3 through 5).

XI. SIMILARITY OF JOB TYPES IDENTIFIED IN THE TWO DIFFERENT SAMPLES

The analyst for the first sample reported identifying 20 job type clusters and 9 unclustered job types, a total of 29 reportable groups. Table 2 shows a copy of the GRP001 Branch Diagram from Report AFPT 90-64X-069. The unclustered job types are at the lower level in the diagram, with the clusters at the upper level. Reports on 10 of the 29 groups are included in the text of the

TABLE 36., JOB TYPES IN GRP021 - ALLOWANCE AND AUTHORIZATION SUBCLUSTER



KPATH	0720-0792	0720-0749	0750-0780	0781-0790
N	73	30	31	10
645X0/647X0	68/4	27/3	31/0	9/1
Average Grade	4.1	4.3	4.0	3.6
Time in DAFSC	38.3	39.5	37.7	35.7
Average Number Tasks	27.3	46.7	16.1	7.5
The Number Group Supervise	.4	.6	.2	.2
T25[a]	6	16	4	2
T50[a]	18	49	10	4
T75[a]	63	113	22	15

[a]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 37. DUTY COMPARISON OF GRP021 -- ALLOWANCE AND AUTHORIZATION SUBCLUSTER

DUTY	GROUP NO	021	078	189	284
	N	73	30	31	10
		%N(%T)	%N(%T)	%N(%T)	%N(%T)
A ORGANIZING AND PLANNING					
B DIRECTING AND IMPLEMENTING					
C INSPECTING AND EVALUATING		64(8)	96(11)	-	50(12)
D TRAINING					
E INVENTORYING EQUIPMENT AND SUPPLIES		-	90(8)	-	-
F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS		-	-	-	-
G PERFORMING ITEM ACCOUNTING FUNCTIONS		-	80(7)	-	-
H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS		-	77(5)	-	-
I PERFORMING MAINTENANCE SUPPORT FUNCTIONS					
J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS		99(48)	96(20)	100(70)	100(61)
K PERFORMING ENGINE MANAGEMENT FUNCTIONS					
L PERFORMING FUNDS MANAGEMENT FUNCTIONS					
M OPERATING COMPUTER SUPPORT EQUIPMENT					
N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT					
O PERFORMING MATERIEL CONTROL FUNCTIONS					
P PERFORMING MANUAL ACCOUNTING PROCEDURES					
Q PREPARING MUNITIONS REPORTS AND DOCUMENTS					
R PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES					
S RECEIVING PROPERTY					
T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY					
U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS		55(7)	83(10)	38(5)	30(7)
V RESEARCHING PUBLICATIONS AND FILES					
W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT					
X DELIVERING SUPPLIES AND EQUIPMENT					

TABLE 38. TASK COMPARISON OF GRP021 -- ALLOWANCE AND AUTHORIZATION SUBCLUSTER

Line No.		TASK TITLE / GROUP NO	021	078	189	284
		N	73	30	31	10
			%N(%T)	%N(%T)	%N(%T)	%N(%T)
1	J9	MAINTAIN SUSPENSE FILE OF AF FORMS 601A AND 601B	66(5)	70(2)	55(4)	100(20)
2	J1	COMPLETE CUSTODIAN REQUEST RECEIPTS AF FORM 601B	77(5)	83(2)	77(6)	70(11)
3	J5	MAINTAIN COMPLETED FILES OF APPROVED AND DISAPPROVED AF FORMS 601A AND 601B	66(4)	73(2)	48(3)	100(15)
4	J27	SCREEN, UPDATE AND FILE CUSTODIAN AUTHORIZATION CUSTODY RECEIPT LISTINGS	55(4)	56(2)	61(5)	20(3)
5	J19	RESEARCH ALLOWANCE DOCUMENTS TO DETERMINE EQUIPMENT ALLOWANCES	64(4)	62(2)	83(7)	20(3)
6	J14	PREPARE INPUTS TO LOAD, CHANGE OR DELETE EAID IN USE DETAIL RECORDS	53(3)	43(1)	86(4)	-
7	B22	PREPARE REQUISITIONS FOR SUPPLIES OR EQUIPMENT	44(2)	82(2)	16(1)	20(3)
8	B2	COORDINATE WITH OTHER SECTIONS OR AGENCIES	44(2)	77(2)	19(1)	30(2)

TABLE 39. SIMILARITY OF JOB TYPES

FIRST ANALYSIS			SECOND ANALYSIS					
Reported Job Type/Cluster			Reported Job Type/Cluster			Unreported Job Type/Cluster		
GRP	Title	N.	GRP	Title	N.	Most Similar to 2nd Sample GRP	N.	Relation to Groups Reported in Second Sample
031[a]	Bench Stock Support	43	104	Bench Stock	26			
430[a]	Pickup and Delivery	121				656	125	656 = 770 + 747
061	Materiel Control Type 1	20				086	21	086 = 153 + 11 isolates
076[a]	Supervision	354	060	Senior Supervisors	366			
354	Training	42	124	Training	33			
1047	Engine Management	5				488	7	No group reported - too small
1354	Funds Management	7	559	Funds Management	13			
055[a]	Requisitioning	98	062	Requisitioning	108			
261	Supply Inspection	47	031	Supply Inspectors	53			
207	Materiel Control Type 2	25				116	25	116 = 201 + 9 isolates
398	Munitions Supply	31	356	Manual Accounting	27			
570	TCTO Monitors	6		-----		-----		-----
300[a]	Warehousing	91				197	110	197 = 464 + 385 + 10 isolates
415	Tool Issue	20	146	Individual Equipment	31			
765	Receiving Incheckers	11		-----		-----		-----
742	Repairable Processing	5		-----		-----		No group reported - too small
149[a]	Storage and Issue	172				239	168	239 = 434 + 439 + 8 isolates
593	Storage and Issue Locators	8		-----		-----		No group reported - too small
110[a]	Receiving	179				121	181	121 = 321 + 317 + 13 isolates
600	Reject Monitors	7				596	10	596 = 147 less 11 members
048[a]	Individual Equipment	48				067	51	067 = 146 + 308 + 9 isolates
390[a]	Inventory	60	421	Inventory Clerks	57			
722	Repair Cycle Support	8		-----		-----		-----
131	Demand Processing	30		-----		-----		-----
066[a]	Allowance and Authorization	81	021	Equipment Authorization Monitors	73			
236	File Maintenance	22	219	SNUD/Catalog Research	13			
250	Research	20				144	29	144 = 808 + 13 isolates
054	Document Control	32	036	Document Control	36			
577	PCAM	14	818	PCAM Operators	10			

[a]Detailed report of job-type group in Report AFPT90-64X-069.

TABLE 40. COMPARISON OF BACKGROUND VARIABLES FOR JOB TYPE PAIRS

GROUP	ARP[a] 031[d]	BRP[b] 104	ARP[a] 048	BRP[b] 067[d]	ARP[a] 055	BRP[b] 062[d]	ARP[a] 066	BRP[b] 021[d]	ARP[a] 076	BRP[b] 060[d]	ARP[a] 110	BRP[b] 321[d]	ARP[a] 149	BRP[b] 239[d]	ARP[a] 300	BRP[b] 197[d]	ARP[a] 390	BRP[b] 421[d]	ARP[a] 430	BRP[b] 656[d]
No. in GRP	43	26	48	51	98	108	81	73	354	366	179	137	172	168	91	110	60	57	121	125
645X0/647X0	31/12	21/5	35/13	35/16	98/0	105/2	80/0	68/4	238/115	263/103	2/166	1/136	4/166	4/164	2/89	14/96	31/29	30/27	9/111	8/117
Av. Grade	4.0	3.9	3.8	3.9	4.5	4.6	4.2	4.1	6.2	6.1	3.8	3.5	3.4	3.5	4.5	4.9	4.4	3.9	3.7	3.5
Total Months in DAFSC	58	49	37	36	56	56	57	38	92	94	41	31	31	34	52	76	56	44	35	26
Av. No. Tasks	14	12	25	41	25	24	22	27	50	36	28	23	20	22	56	69	24	25	12	12
Av. No. Supervised	1.5	1.5	.4	.9	1.4	1.5	1.0	.4	4.4	3.9	2.0	.7	.7	.5	2.2	3.0	.9	.5	.5	.6
T25[c]	2	2	6	7	6	7	5	6	14	12	5	5	5	5	15	21	5	5	2	3
T50[c]	8	7	20	?	17	19	13	18	44	37	12	11	12	13	42	50	11	10	5	5
T75[c]	25	19	56	?	46	48	41	63	114	96	28	20	27	30	90	104	23	20	10	9

[a]ARP = GRP from First Analysis.
[b]BRP = GRP from Second Analysis.
[c]Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.
[d]Job Type Reported by Both Analysts.

TABLE 41. STABILITY OF JOB TYPE GROUP SIZE

FIRST SAMPLE		SECOND SAMPLE		χ^2
GRP	N	GRP	N	
031[a]	43	104	26	3.71
430	121	656	125	0.03
061	20	086	21	0.00
076[a]	354	060	366	0.16
354[a]	42	124	33	0.85
1047	5	488	7	0.08
1354[a]	7	559	13	1.25
055[a]	98	062	108	0.39
261[a]	47	031	53	0.25
207	25	116	25	0.00
398[a]	31	356	27	0.15
300	91	197	110	1.61
415[a]	20	146	31	1.96
149	172	239	168	0.02
110	179	121	181	0.00
600	7	596	10	0.23
048	48	067	51	0.04
390[a]	60	421	57	0.03
066[a]	81	021	73	0.31
236[a]	22	219	13	1.82
250	20	144	29	1.30
054[a]	32	036	36	0.13
577[a]	14	818	10	0.37

[a]Job type group reported by both analysts.

report. For all 29 groups, the complete job description (all duties and all tasks) was available in the computer printout, but background Variables Summaries (VARSUMS) were available only on the 10 groups written up. KPATH printouts of all the background variables for all cases in the first sample were also available.

To gauge the similarity of the job types reported in the two analyses, each of the 29 groups reported on the first occasion was compared initially with the 54 reported job types in the second analysis; then, if no obvious similarity was found, the next step was to compare it with each of the many other groups examined during the second analysis but not selected as a reportable job type (unreported group). If this search did not locate a similar group, the third step was to examine the KPATH listing of background variables such as Present Job and Work Area Presently Assigned for the first group and then scan the KPATH of these variables for the second sample to locate a similar group. These searches resulted in at least one tentatively similar group being located for 28 of the 29 job types reported in the first sample.

Each of these tentatively similar job type groups was then compared by an automated job type selection program which reports any significant difference in an input pair of job types in terms of such variables as the percent time spent on tasks and duties, the percent of members performing the various tasks, and the average number of tasks performed by each. In all, this program gives six measures of similarity for each pair of job types input. The program indicated that six of the input pairs were significantly different. Further effort at locating matching job types for these six groups proved unsuccessful.

Table 39 tabulates the 29 job types from the first analysis together with their matched job type, if any, from either the reported job type or unreported groups from the second analysis. It also shows the relationship between the unreported groups in the second analysis and groups which were reported; e.g., GRP656, an unreported group almost identical with the first analyst's Pickup and Delivery GRP430, is simply the combination of Driver/Receiver GRP770 and Pickup and Delivery Driver GRP747, both of which were reported in the second analysis. A comparison of background variables for each of the 10 job types reported in detail in the first analysis, together with its matched pair, is given in Table 40. The position of the unreported groups has been marked, in retrospect, on the appropriate branch diagram, shown χ together with its group number.

Thirteen of the job types reported in the first analysis were also reported in the second. These accounted for 851 and 846 cases respectively of the 1,983 in each sample. Ten other job types reported in the first analysis, accounting for 693 cases, were matched by 10 unreported groups, accounting for 727 cases, in the second. Six job type groups in the first sample, accounting for 73 cases, could not be matched by job type groups in the second. This was due primarily to the size of each group being below the 10 case minimum set in job typing the second sample.

The stability of the size of the groups reported on the two occasions was tested using χ^2, the results being shown in Table 41. In no case was χ^2 significant at the .5 level. Inspection shows that the groups are quite stable, though there is some decrease in stability for the smaller job types. Managers extrapolating survey results to total populations should be cognizant of this reduced stability for small groups.

In conclusion, all job types identified by the first analyst were identified by the second, with the exception of six small job types accounting for 73 cases. While there were some variations in the size and nature of the job type groups from one analyst to the other, differences were sufficiently small that a manager using either analysis should have made essentially the same decisions.

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